SERVICE MANUAL

C 542
COMPACT
DISC PLAYER

NAD

C 542

COMPACT DISC PLAYER

SAFETY INFORMATION

CAUTION

CAUTION - INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

ADVARSEL - USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.

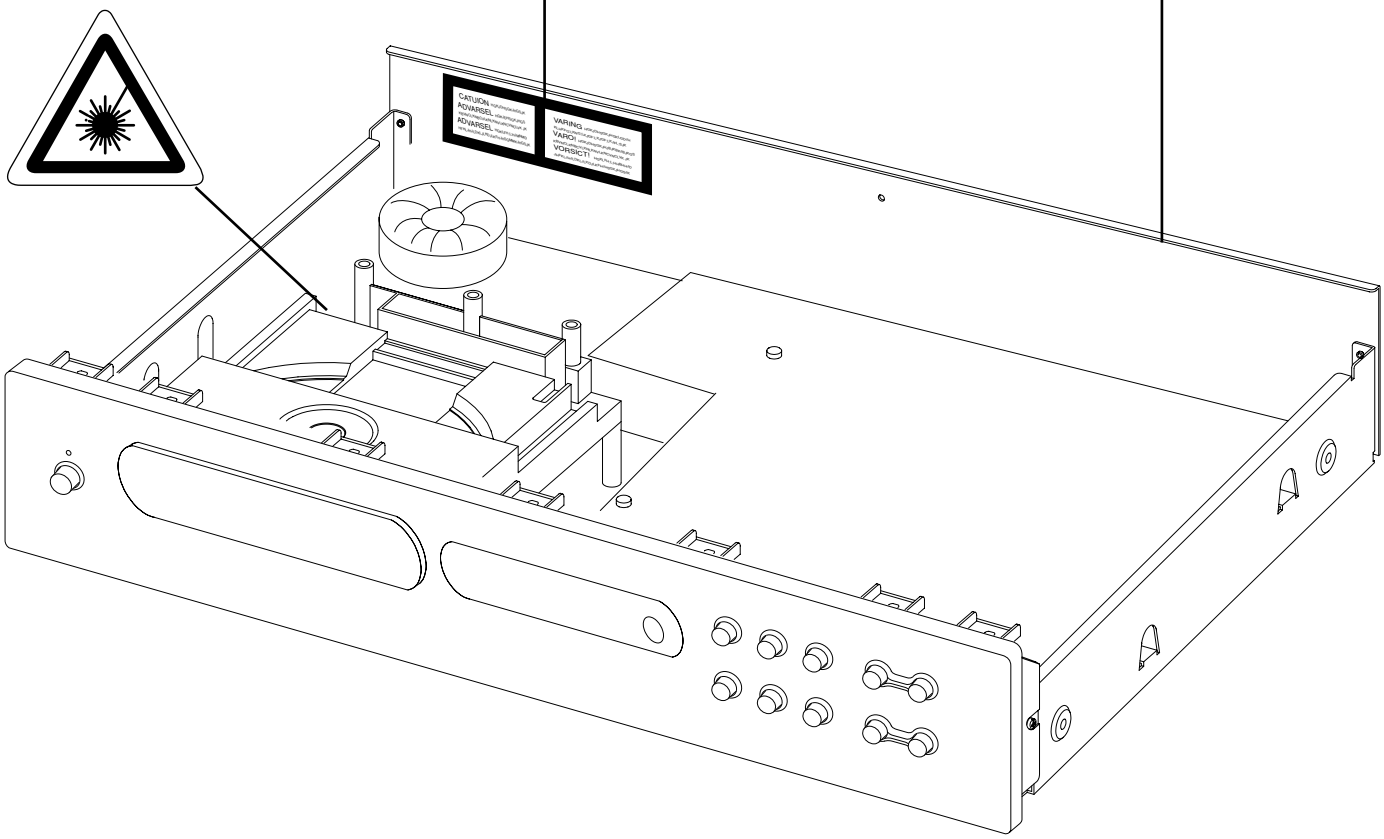
ADVARSEL - USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARNING - OSYNLING LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRRAR ÄR URKOPPLADE. STRÅLEN ÄR FARLIG.

VARO! - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKTMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KAISO SÄTEESEEN.

VORSICT! - UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT DEM STRAHL AUSSETZEN.

CLASS 1
LASER PRODUCT



The lightning flash with arrowhead, within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:-
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

SERVICE SAFETY PRECAUTIONS

1. Replacing the fuses

CAUTION: FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE REPLACE ONLY WITH SAME TYPE OF FUSE.

Reference No		Part Number	Description
M507	*AH ⚠	5120-0052-0	FUSE T1.6A 250V 5x20MM
M507	*C ⚠	5120-0050-0	FUSE T1.6A 250V 5x20MM
M512, M513	*AH ⚠	5120-0020-0	FU T1A 250V UL/CSA 5x20MM
M512, M513	*C ⚠	5120-0018-0	FU T1A 250V SEMKO/VDE
M514	*AH ⚠	5120-0026-0	FU T315MA L 250V UL/CSA
M514	*C ⚠	5120-0027-0	FU T315MA L 250V

NOTE:
<*AH > : USA, CANADIAN MODEL ONLY.
<*C > : EUROPEAN MODEL ONLY.

2. Safety check out

(Only U.S.A. model)
Before returning the product to the customer, make leakage current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit.

Parts marked with the symbol ⚠ are critical with regard to the risk of fire and electric shock. Replace only with parts recommended by the manufacturer.

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SPECIFICATIONS

Disc Capacity	One Disc, 120 or 80 mm
Decoding	BURR-BROWN Delta Sigma 24bit
Digital Filter	8 Times oversample
Analog Filter	4 pole active
Frequency Response	+/- 0.5 dB, 5Hz - 20kHz
De-Emphasis Error	+/- 0.3 dB
THD (at 0 dB, 1kHz)	0.002%
Intermodulation Distortion (19 + 20 kHz)	< - 100 dB
Dynamic Range	96 dB
Linearity	+/- 0.5 dB, 0 dB to -80 dB
Signal / Noise Ratio (A-Weight)	≥100 dB, De-Emphasis on
	≥100 dB, De-Emphasis off
Channel Separation 1kHz	>90 dB
10 kHz	>80 dB
Wow and Flutter	Unmeasurable (Quartz Crystal Accuracy)
Output Impedance	200 Ω
Output Level at 0 dB	2.2 V rms
Digital Error Correction	IRC with double error correction in C1 and C2
Digital Code Output	Sony / Philips Serial data format
Power Consumption	12W

CONTROLS

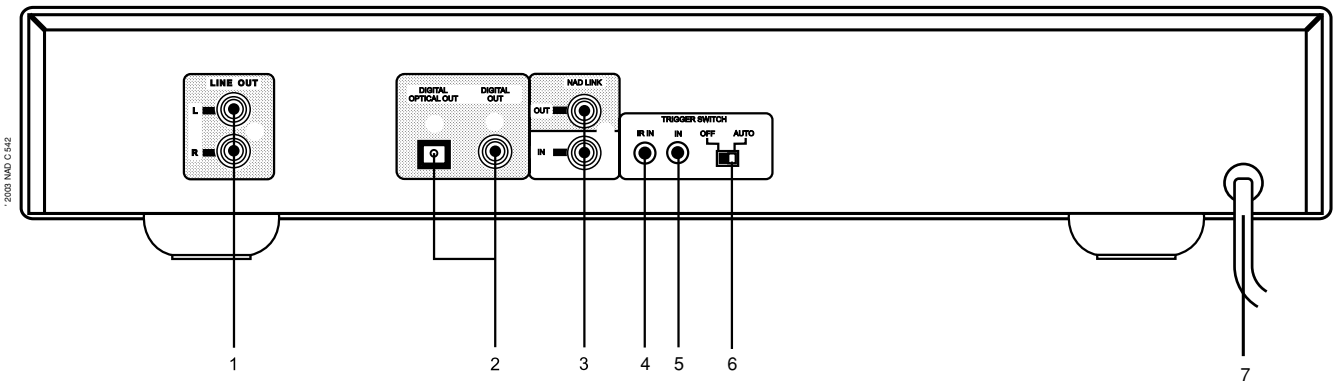
Play / Pause, Stop, Random, Skip (< >), Scan (< >), Open, Time, Repeat.

PHYSICAL SPECIFICATIONS

Dimensions (Width x Height x Depth)	435 x 80 x 285 mm
Net weight	4 kg (8.8 lbs)
Shipping weight	5.1 kg (11.22 lbs)

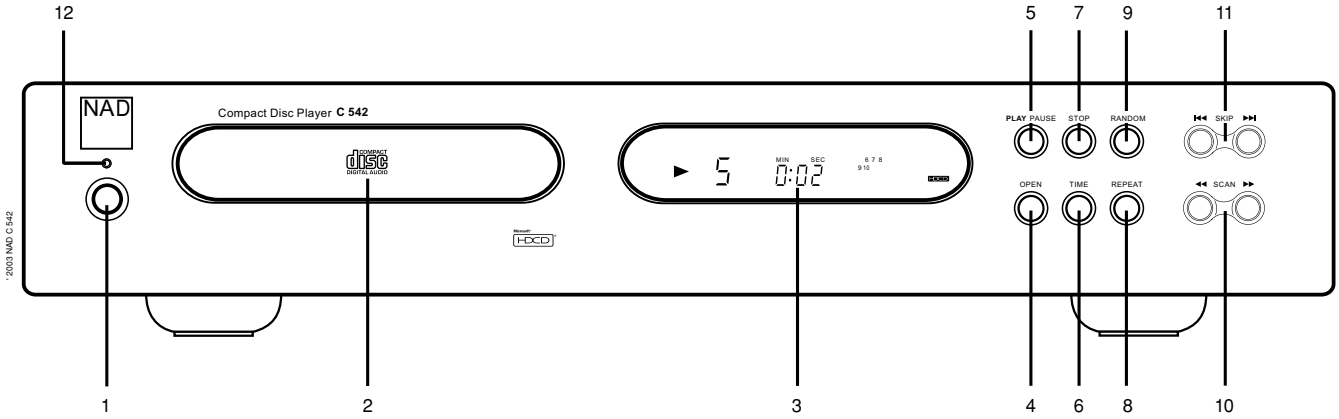
REAR PANEL / FRONT PANEL

REAR PANEL



1. LINE OUT
2. DIGITAL OPTICAL & COAXIAL OUTPUT
3 NAD LINK IN / OUT
4. IR INPUT
5. TRIGGER IN
6. TRIGGER SWITCH
7. AC LINE CORD

FRONT PANEL



1. POWER ON / OFF
2. DISC DRAWER
3. DISPLAY
4. OPEN
5. PLAY / PAUSE
6. TIME
7. STOP
8. REPEAT
9. RANDOM
10. SCAN Back (◀◀) / Forward (▶▶)
11. SKIP Back (I◀◀) / Forward (▶▶I)
12. STANDBY LED

DISASSEMBLY INSTRUCTIONS

1. Remove machine screws M 4.0 x 6.0 (①to ④) from the side panels.
   Remove tapping screw 3.0 x 8.5 (⑤)from the back panel.
   Refer to **Figure No.1**.

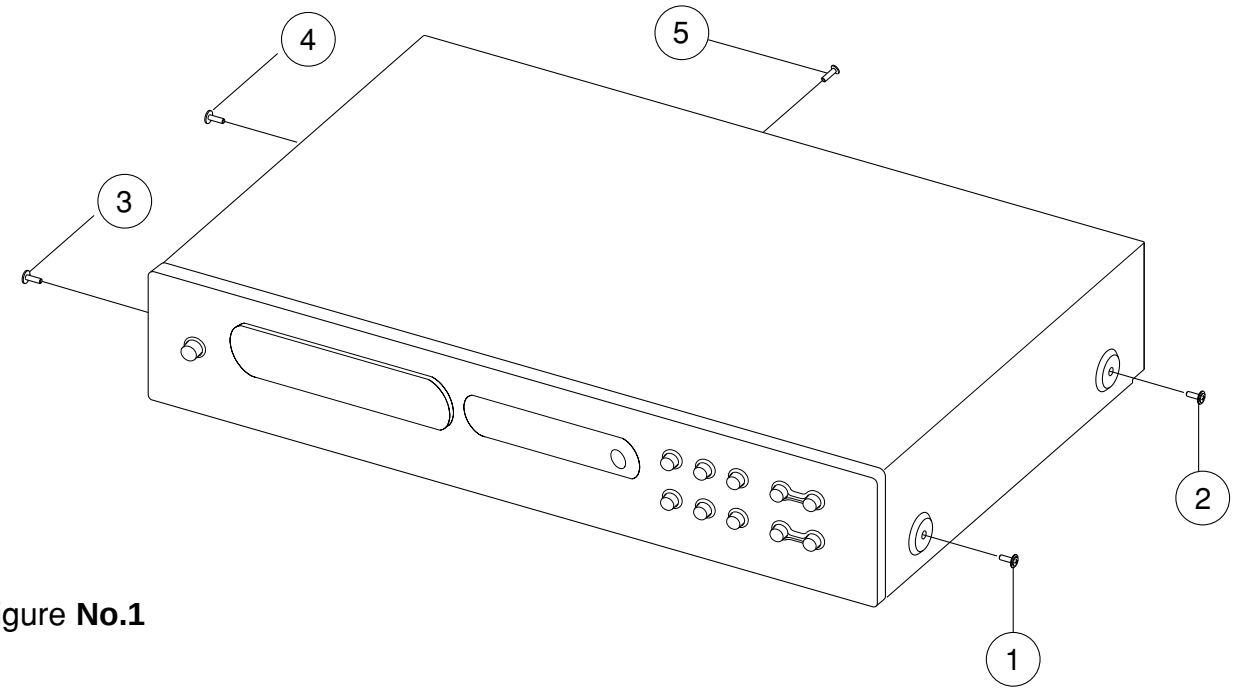


Figure **No.1**

2. Pull both sides of the TOP COVER slightly outwards ⑥ and tilt approx. 35˚ and then remove in the direction as indicated by the arrow ⑦. Refer to **Figure No.2**.

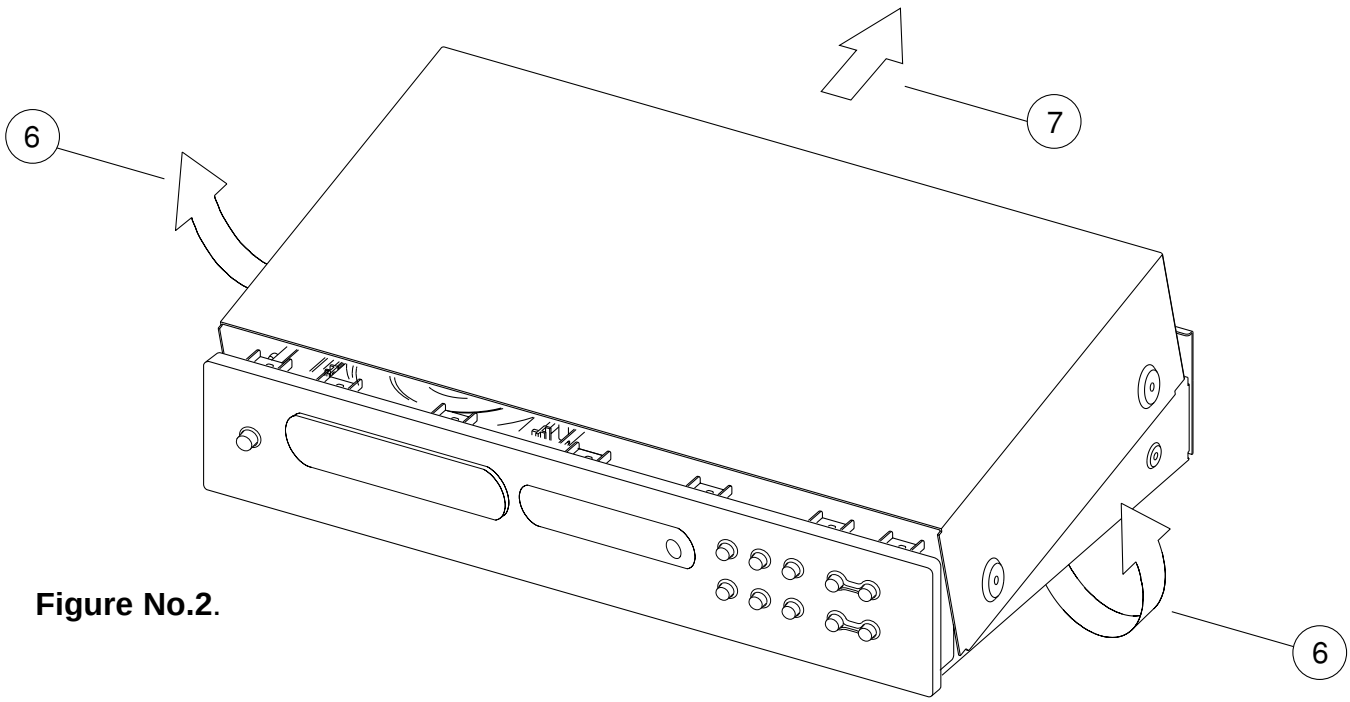
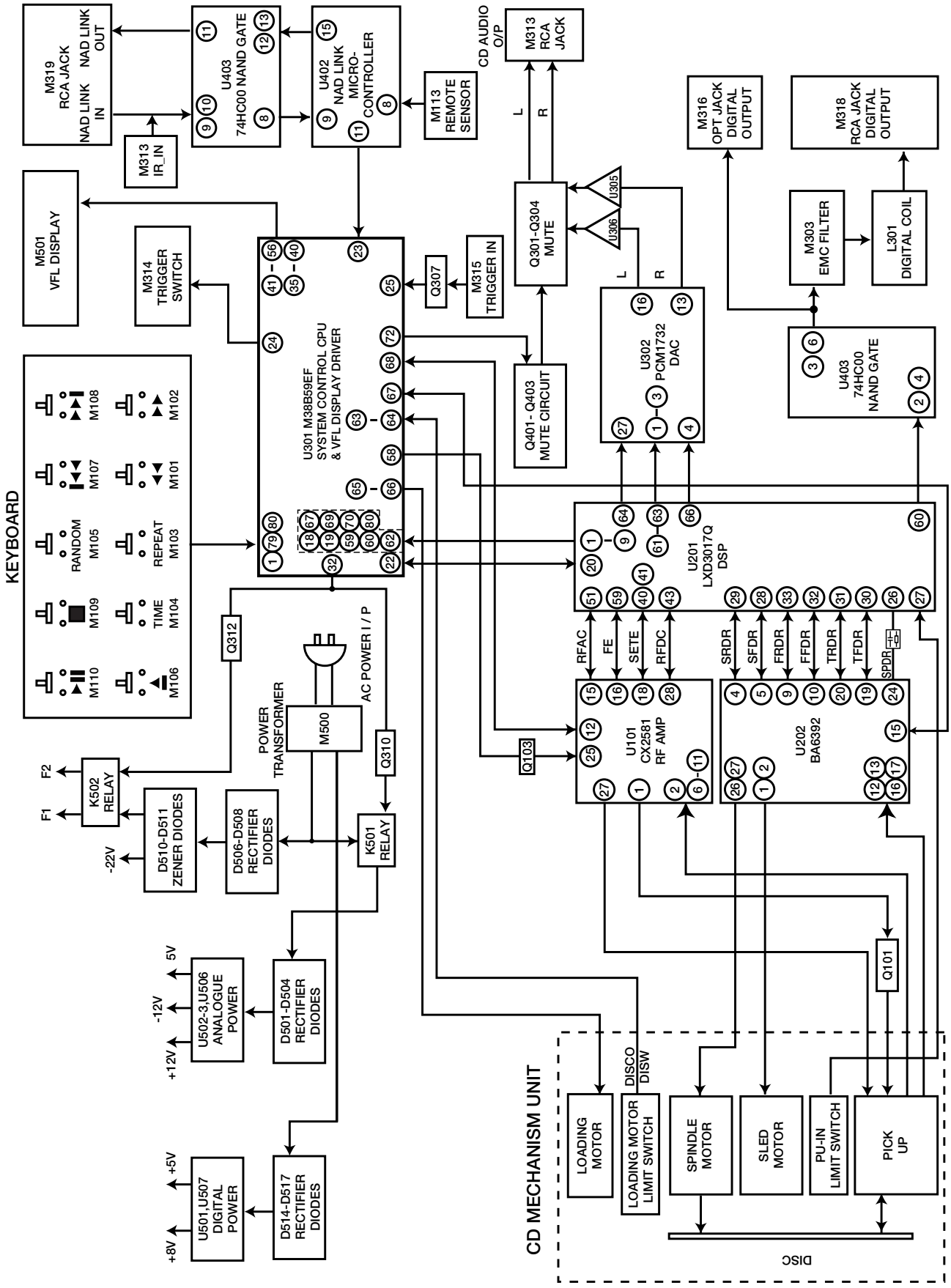
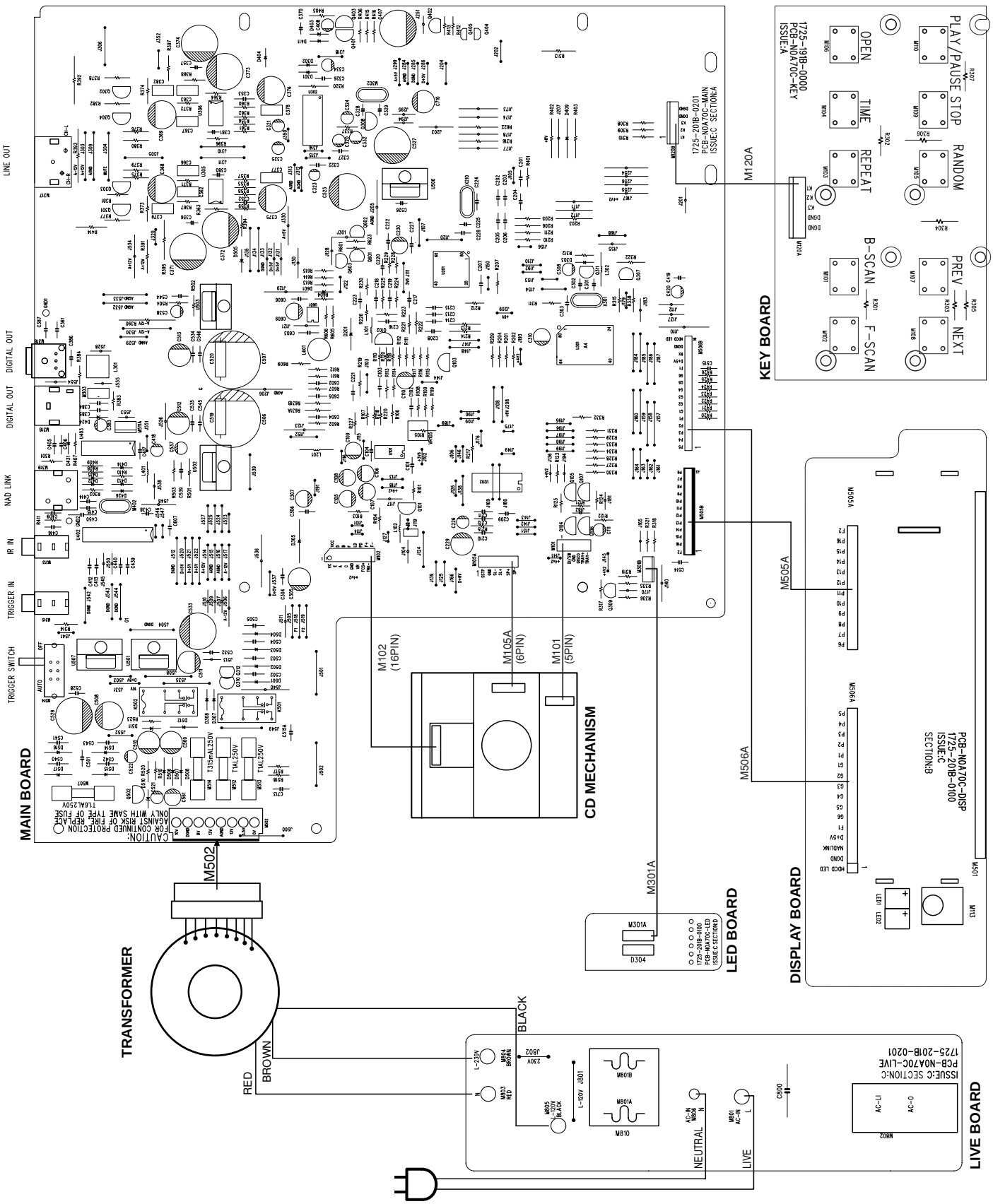


Figure No.2.

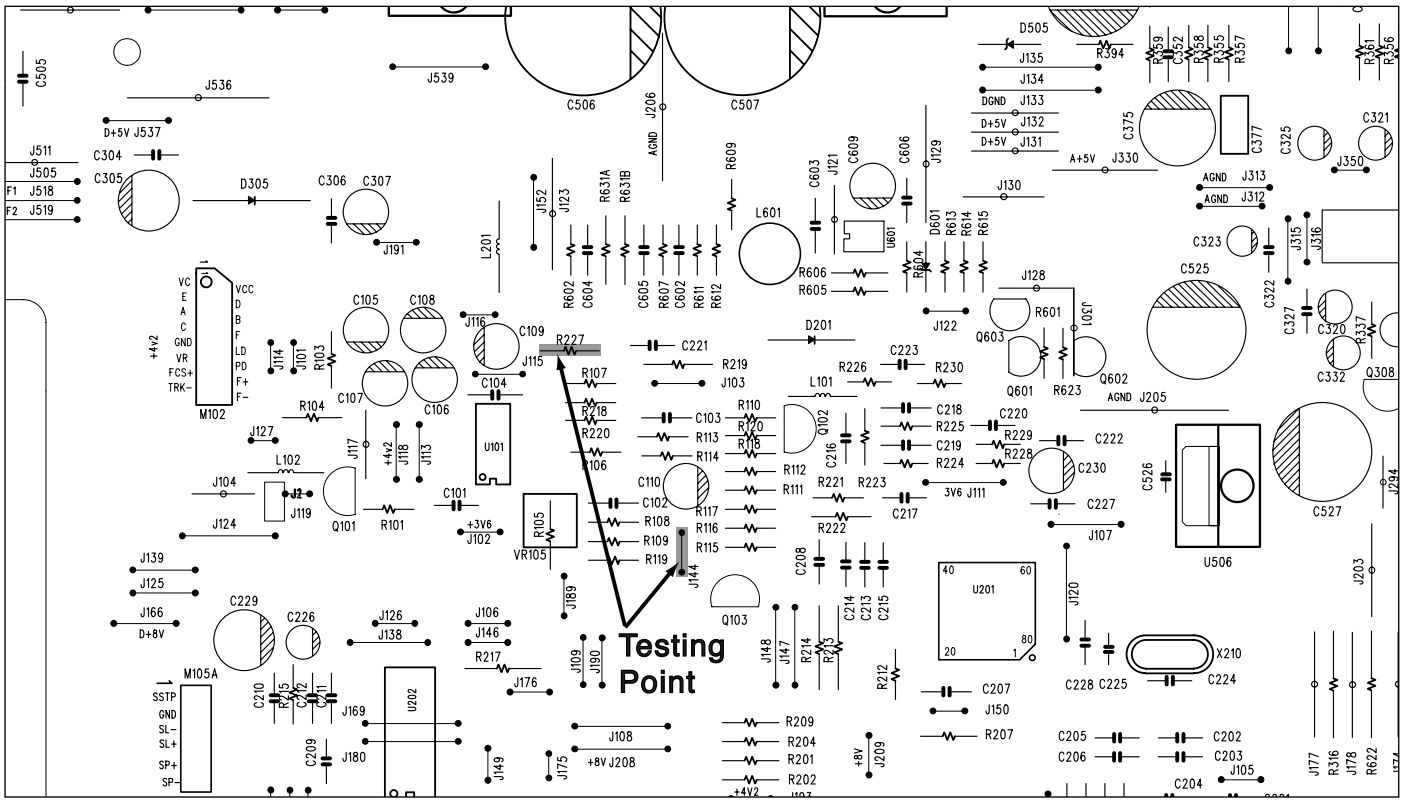
BLOCK DIAGRAM



WIRING DIAGRAM



RF PATTERN TESTING



NAD - C 542 PCB TESTING POINTS DIAGRAM

TESTING PROCEDURE

(1) Load the test disc (Sony Test CD YEDS-7) and set the unit into PLAY mode.

(2) Connect the scope to R227 (Pin 15 of U101) and DGND (J144).

Scope setting: Coupling : AC.
Vertical sensitivity : 0.2 V/ div.
Horizontal time base : 0.5 µS/div.

(3) Observe the waveform is 2.0V p-p +/-5% and the eye pattern is at its best shape (see **FIG. 1**).

FIG. 1 (a)

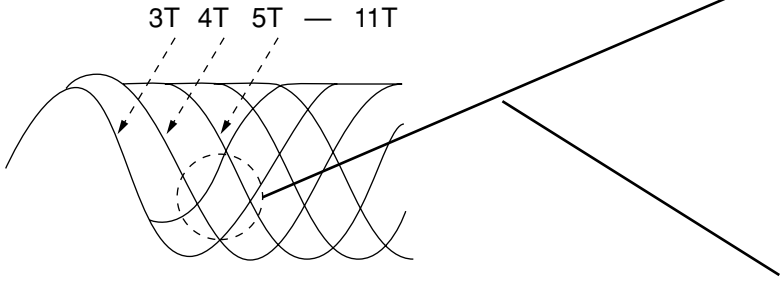


FIG. 1 (b) Poor eye pattern

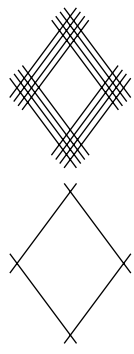


FIG. 1 (C) Good eye pattern

IMPORTANT NOTES

INSTRUCTION FOR HANDLING OPTICAL SYSTEM BLOCK PICK-UP

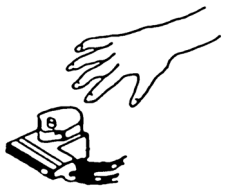
Electrostatic breakdown of the laser diode in the optical system block may occur due to a potential difference caused by electrostatic charge accumulated on clothing, human body, etc. A ground must be provided as follows to prevent any electrostatic charge during unpacking or repair work.

1. Ground for Human Body
Be sure to wear a ground band (1M ohm) that is properly to remove any static electricity that may be charged on the body.

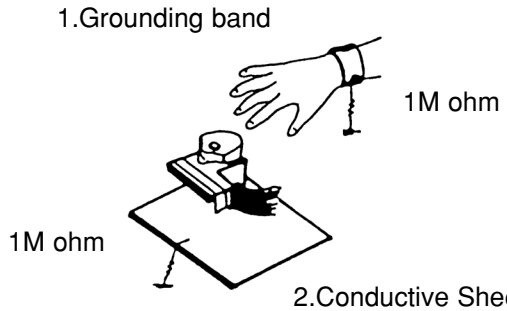
2. Ground for Work Bench
Be sure to place a conductive sheet (1M ohm) or copper plate with proper grounding on the work bench or other surface on which the pick-up is to be placed.

3. Because the static electricity charge on the clothing does not discharge through the body grounding band, do not let clothing to get in contact with the pick-up unit.

INCORRECT



CORRECT



NOTE: Laser diodes are so susceptible to damage from static electricity that even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly.

PRECAUTIONS FOR CHECKING BEAM EMISSION

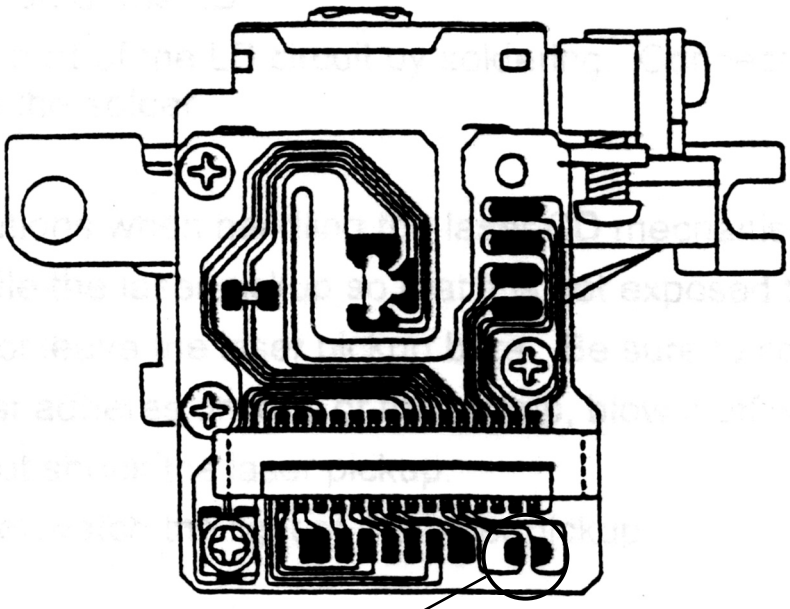
The laser beam of this unit is focused on the reflecting surface of the objective lens in the optical system block. Therefore, keep your eyes at least 12 inches (30 cm) away from the objective lens when the laser diode is **ON**.
(Operation Check Method for Laser Diode and Focus Search Function.)
When the **POWER** switch is turned **ON** after the chucking plate is removed, observe the objective lens and confirm that the following operations are performed properly.
(The optical system should be at the lead-in area position when it is checked at this time.)
(1) The laser should be at the innermost position after the chucking plate is removed.
(2) The diffused light of the laser beam can be seen when the **POWER** switch is turned **ON**.
(3) Vertical (up and down) movement of the objective lens (2 or 3 times) will take place.

PRECAUTIONS WHEN CHANGING LASER PICK-UP

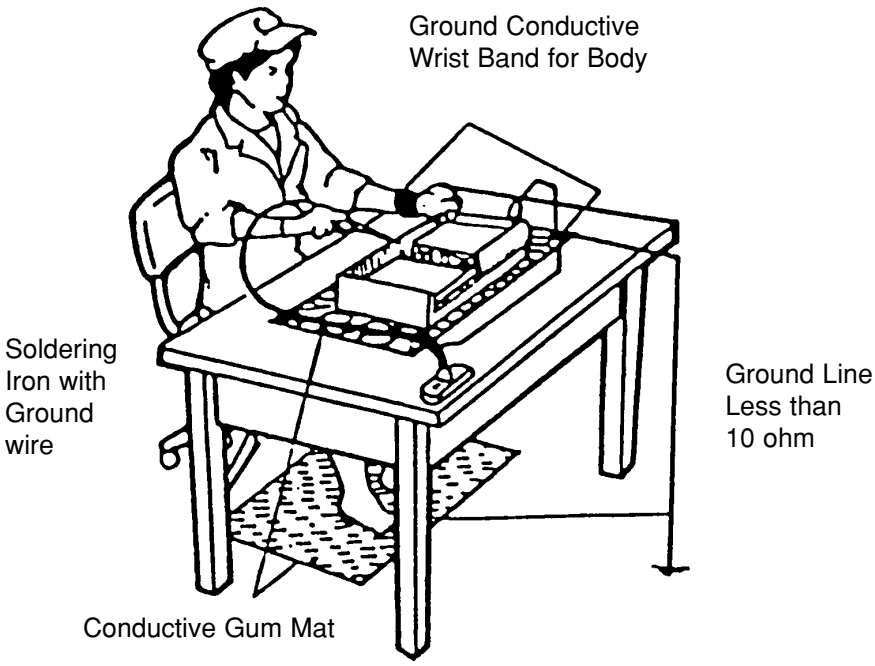
When removing the pick-up assembly, short circuit the PCB tracks on the optical block as show in the drawing in order to protect the pick-up before removal.

NOTE: Replacement pick-up assemblies are supplied with the PCB pattern already protected.

DO NOT REMOVE THE SHORT CIRCUITS UNTIL YOU HAVE FINISHED FITTING THE PICK-UP.

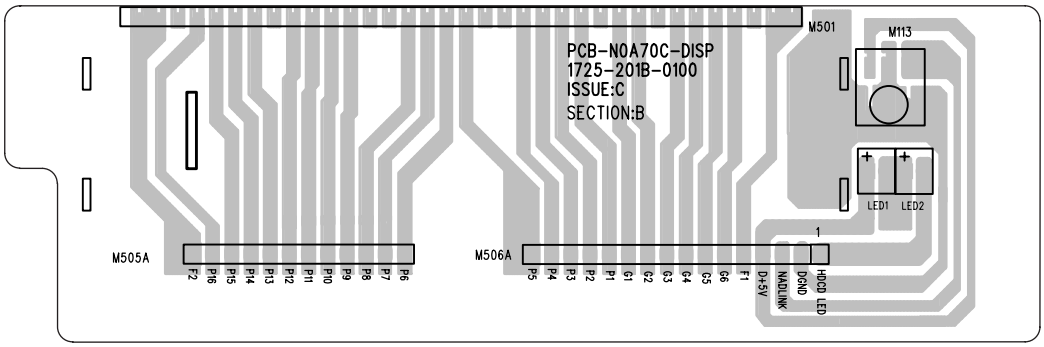


Caution:
Laser diodes are extremely susceptible to damage from static electricity. Even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly. When replacing the pick-up, use a conductive mat, a grounded soldering iron, and so on, to protect the laser diode from static damage.

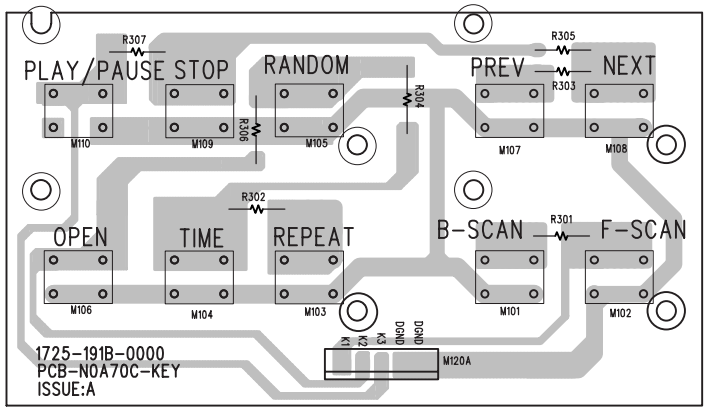


PCB LAYOUT

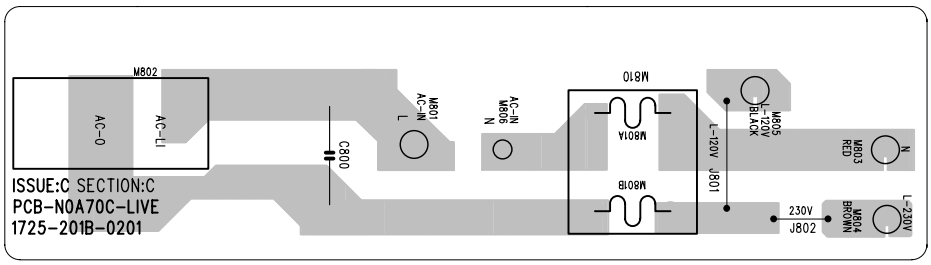
DISPLAY BOARD



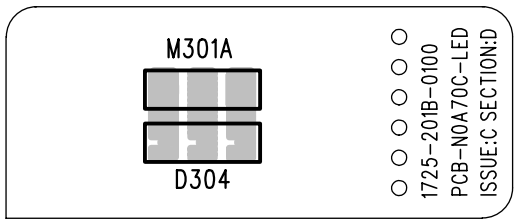
KEY BOARD



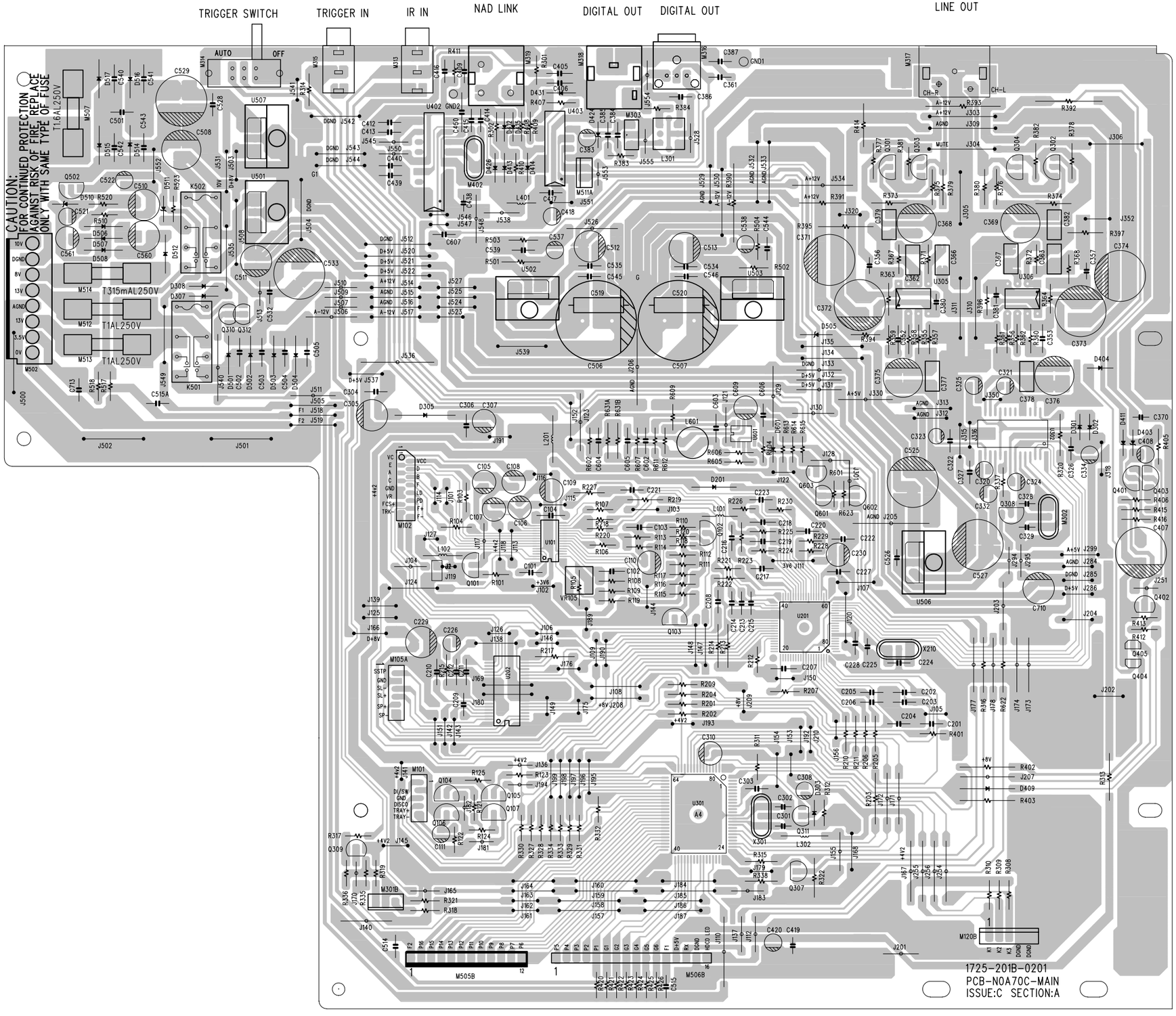
LIVE BOARD



LED BOARD

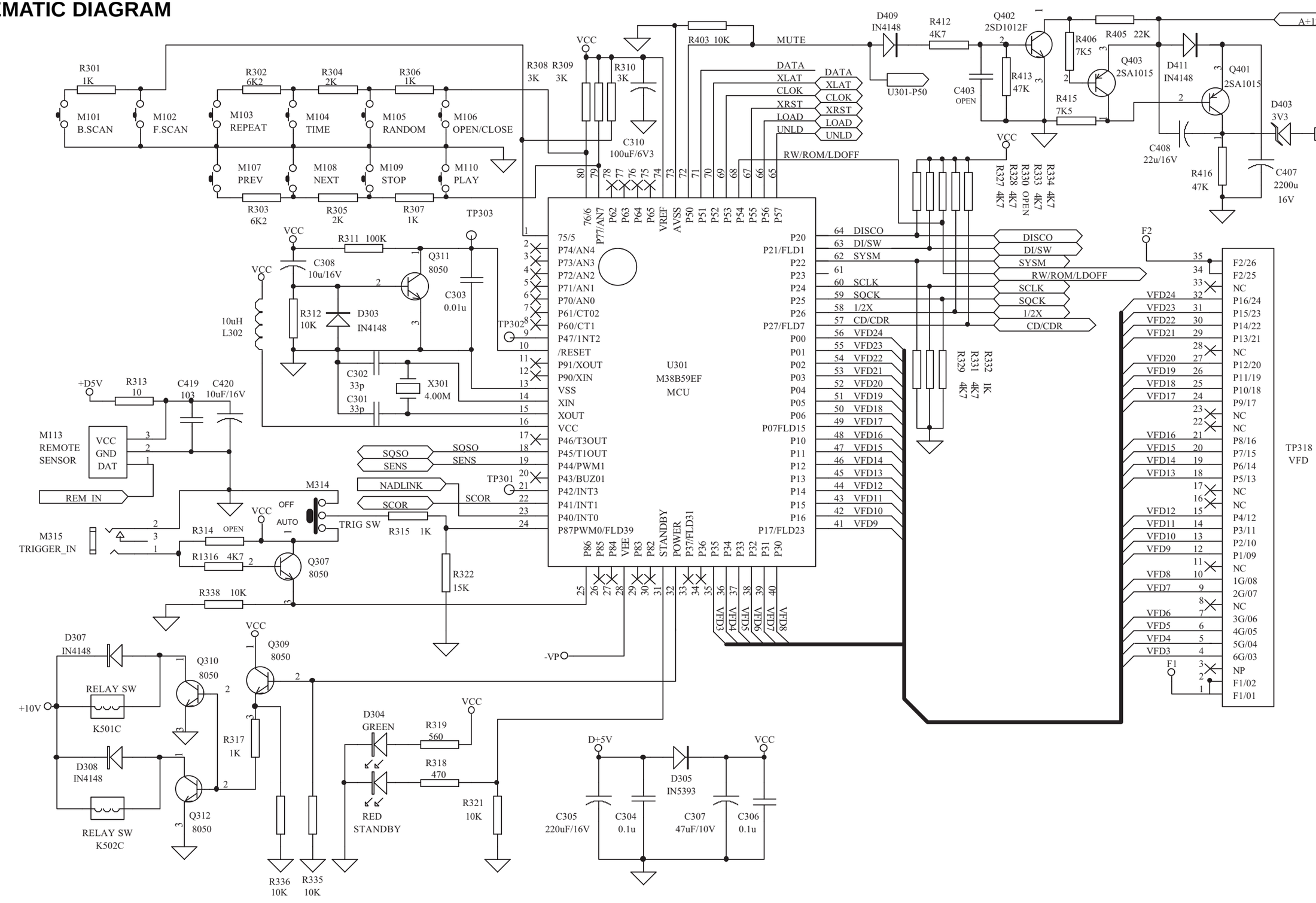


MAIN BOARD

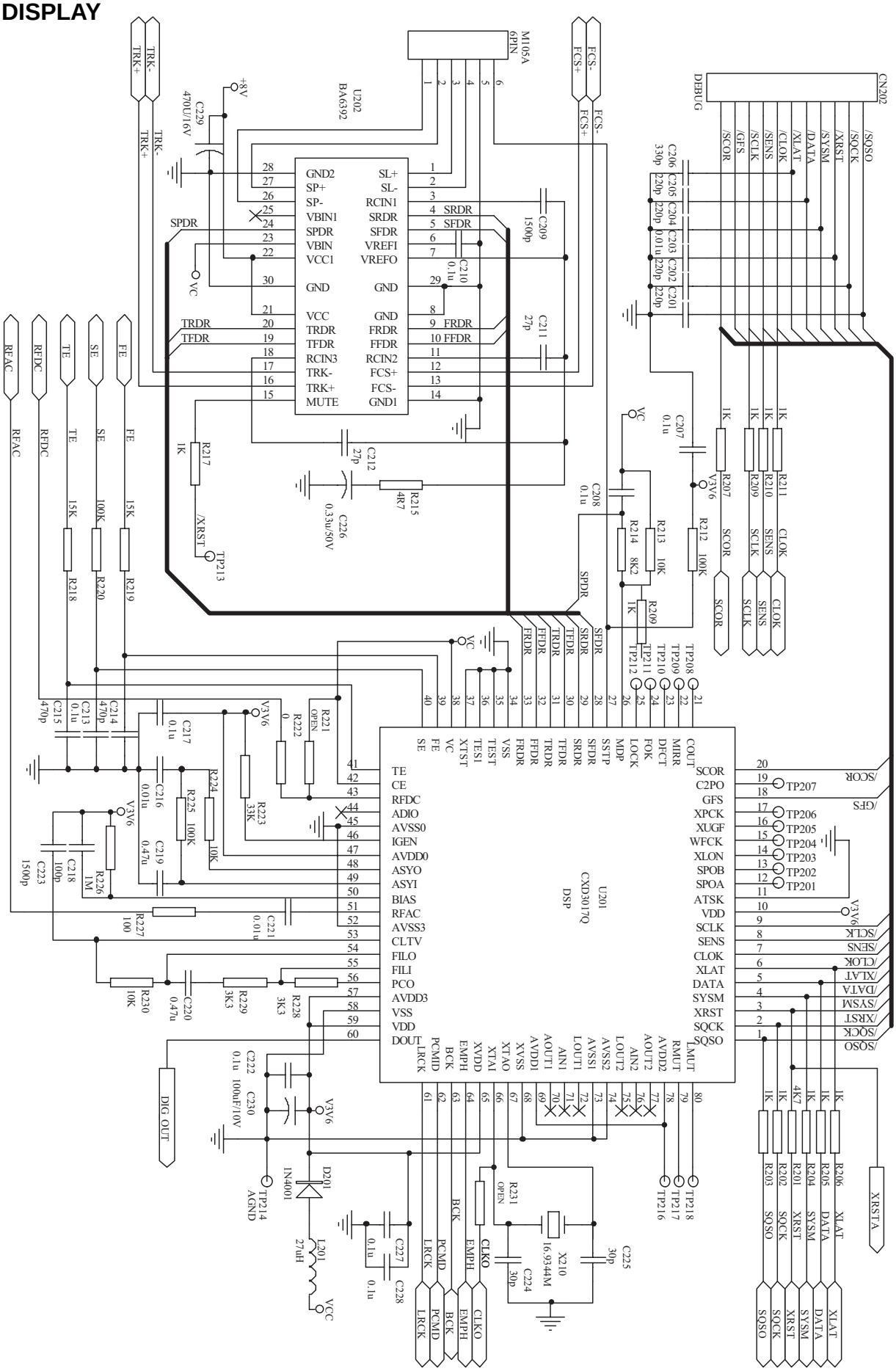

TRIGGER SWITCH
TRIGGER IN
IR IN
NAD LINK
DIGITAL OUT
DIGITAL OUT
LINE OUT
AUTO
OFF
CAUTION:
FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE, REPLACE
ONLY WITH SAME TYPE OF FUSE
T1.6AL250V
T315mAL250V
T1AL250V
T1AL250V
1725-201B-0201
PCB-N0A70C-MAIN
ISSUE:C SECTION:A

SCHEMATIC DIAGRAM

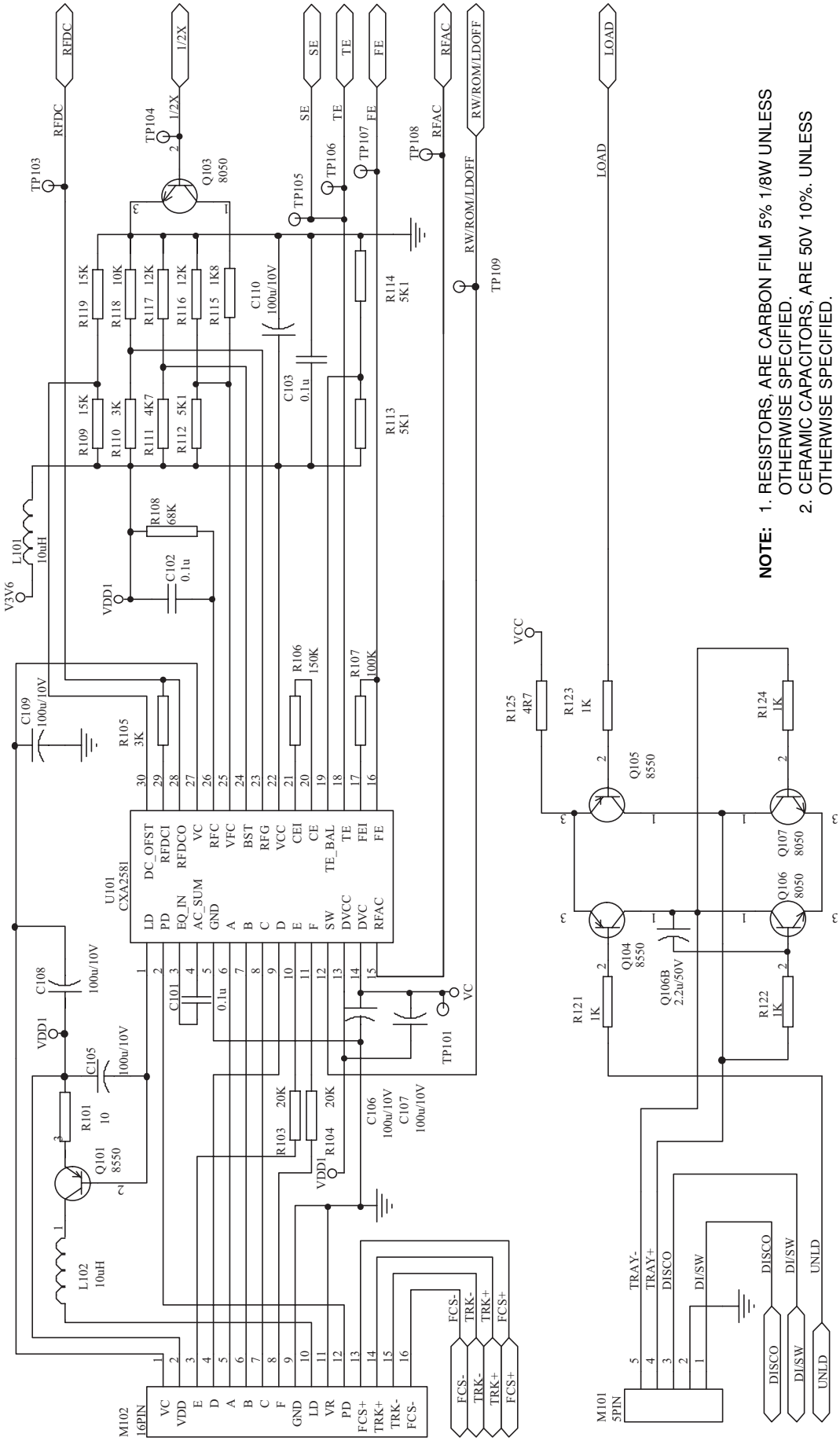
MCU



DISPLAY


NOTE: 1. RESISTORS, ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
2. CERAMIC CAPACITORS, ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.
U201 CXD3017Q DSP
U202 BA6392
M105A 6PIN
CN202
DEBUG
/SQSO
/SQCK
/XRST
/SYSM
/DATA
/XLAT
/CLOK
/SENS
/SCLK
/GFS
/SCOR
TRK-
TRK+
FCS-
FCS+
+8V
C229 470U/16V
SPDR
VC
TRDR
TFDR
FRDR
FFDR
SRDR
SFDR
SCOR
SCLK
SENS
CLOK
/XRSTA
DIG OUT
D201 1N4001
L201 27uH
X210 16.9344M
TP201
TP202
TP203
TP204
TP205
TP206
TP207
TP208
TP209
TP210
TP211
TP212
TP213
TP214 AGND
TP216
TP217
TP218
RFAC
RFDC
TE
SE
FE

RF AMP



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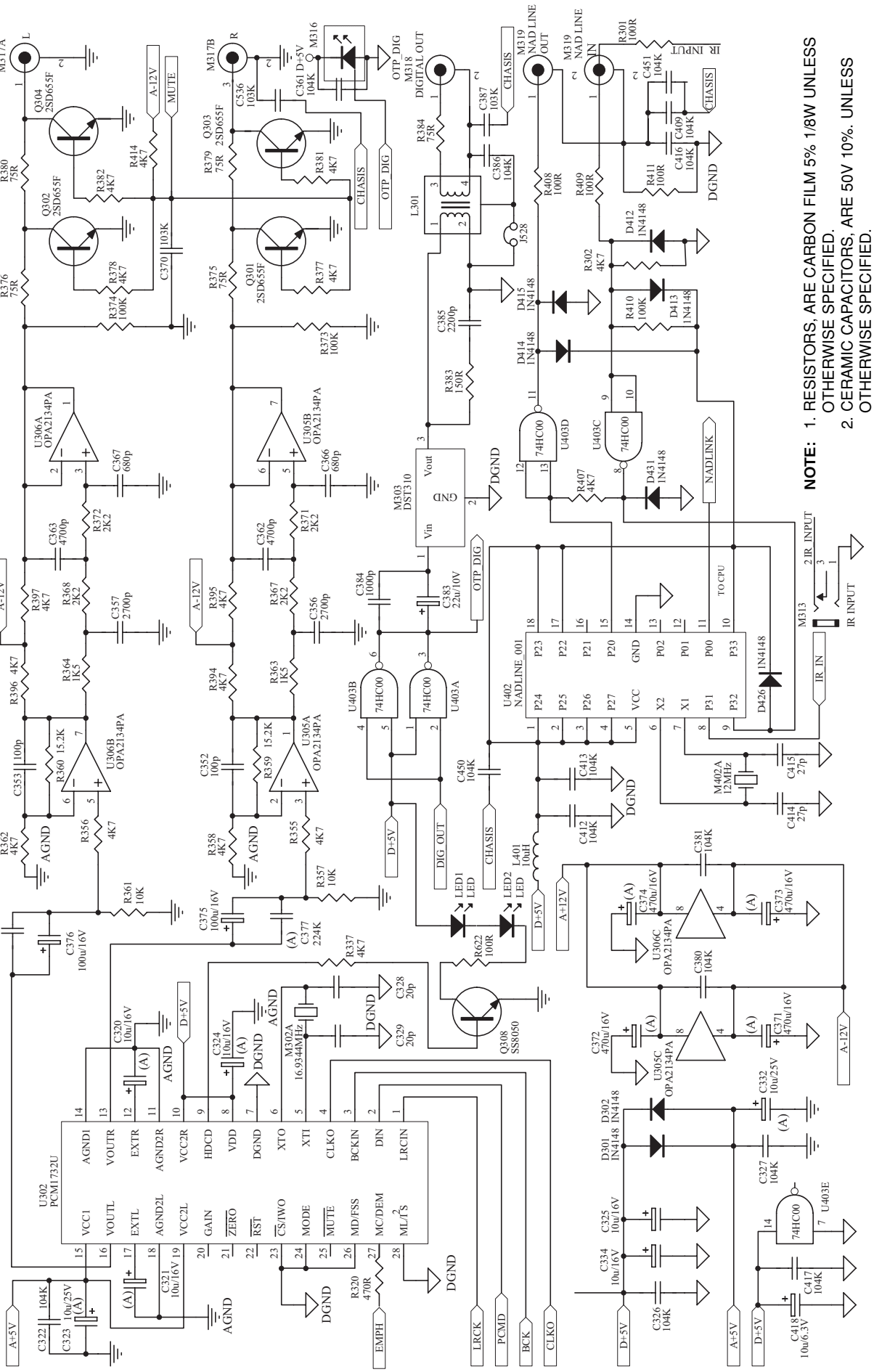
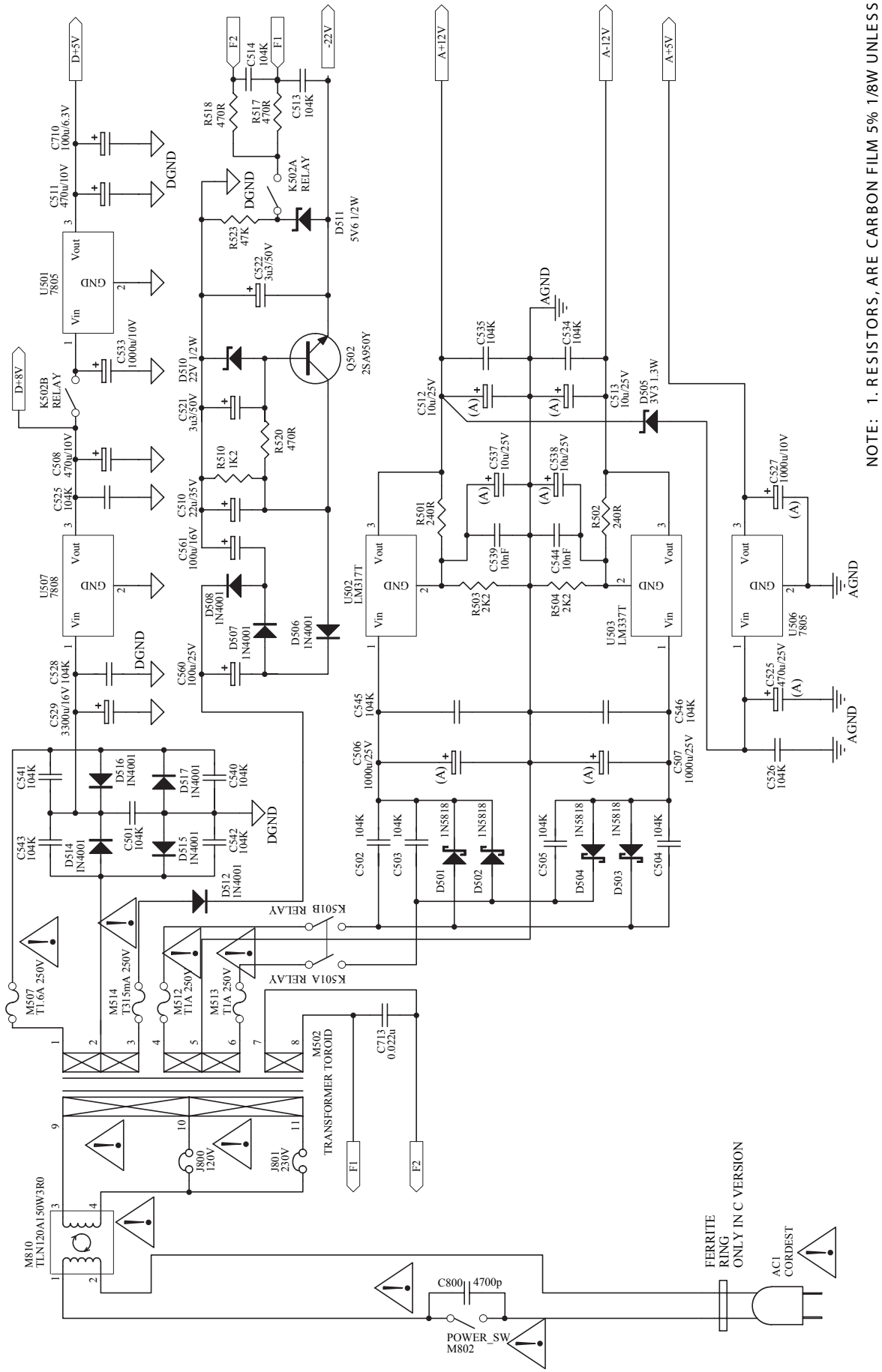
2. CERAMIC CAPACITORS, ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.

DAC


NOTE: 1. RESISTORS, ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
2. CERAMIC CAPACITORS, ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.
U302 PCM1732U
U306A OPA2134PA
U306B OPA2134PA
U305A OPA2134PA
U305B OPA2134PA
U306C OPA2134PA
U305C OPA2134PA
U402 NADLINE_001
U403A 74HC00
U403B 74HC00
U403C 74HC00
U403D 74HC00
U403E 74HC00
M303 DST310
M317A L
M317B R
M318 DIGITAL OUT
M319 NAD LINE OUT
M319 NAD LINE IN
M313 IR INPUT
M316 OTP_DIG
M302A 16.9344MHz
M402A 12MHz
Q304 2SD655F
Q303 2SD655F
Q302 2SD655F
Q301 2SD655F
Q308 SS8050
L301
L401 10uH
LED1 LED
LED2 LED
D412 1N4148
D413 1N4148
D414 1N4148
D415 1N4148
D431 1N4148
D426 1N4148
D301 IN4148
D302 IN4148
J528
A-12V
MUTE
CHASSIS
OTP_DIG
DIG OUT
NADLINK
IR INPUT
TO CPU
A+5V
D+5V
AGND
DGND
A+12V
LRCK
PCMD
BCK
CLKO
EMPH

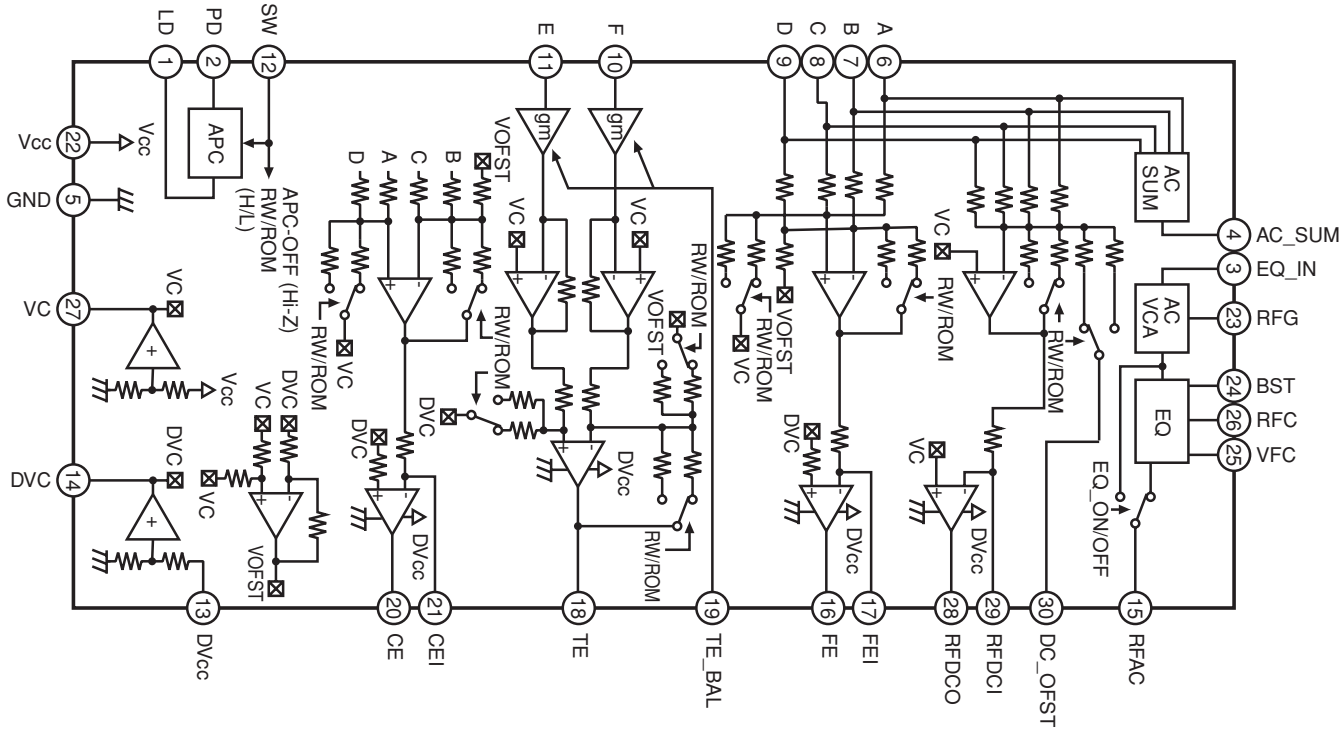
POWER



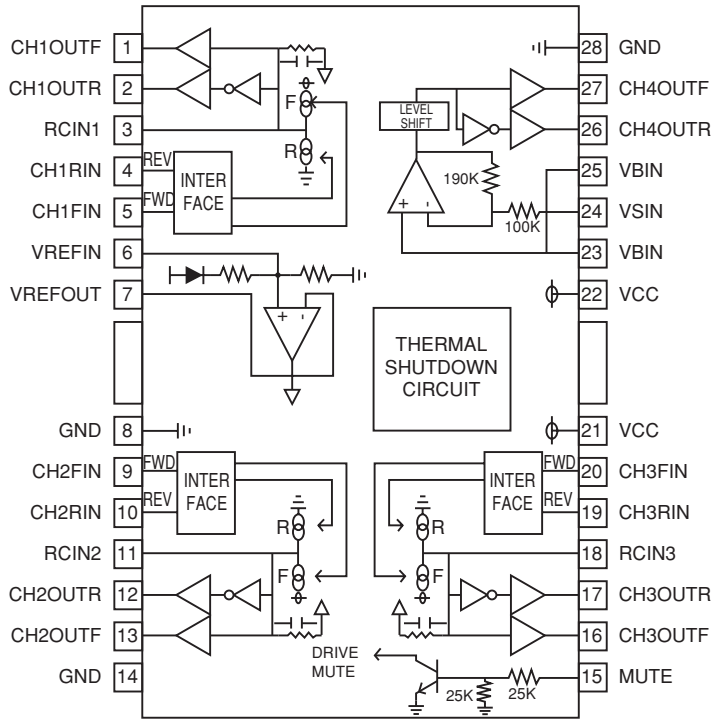
NOTE: 1. RESISTORS, ARE CARBON FILM 5% 1/8W UNLESS OTHERWISE SPECIFIED.
2. CERAMIC CAPACITORS, ARE 50V 10%. UNLESS OTHERWISE SPECIFIED.

IC BLOCK DIAGRAM

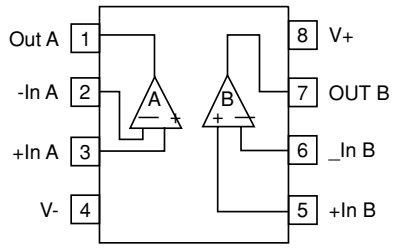
MAIN BOARD
U101: CXA2581N



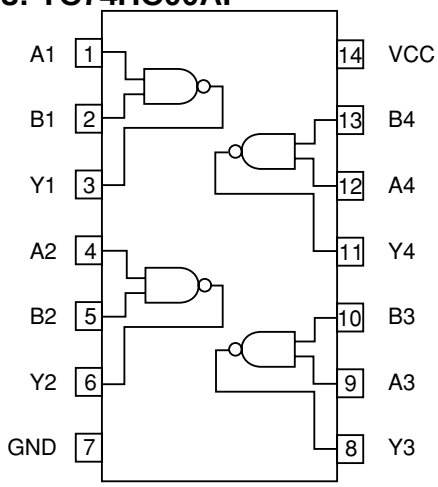
MAIN BOARD
U202: BA6392FP



MAIN BOARD
U305, U306: OPA2134

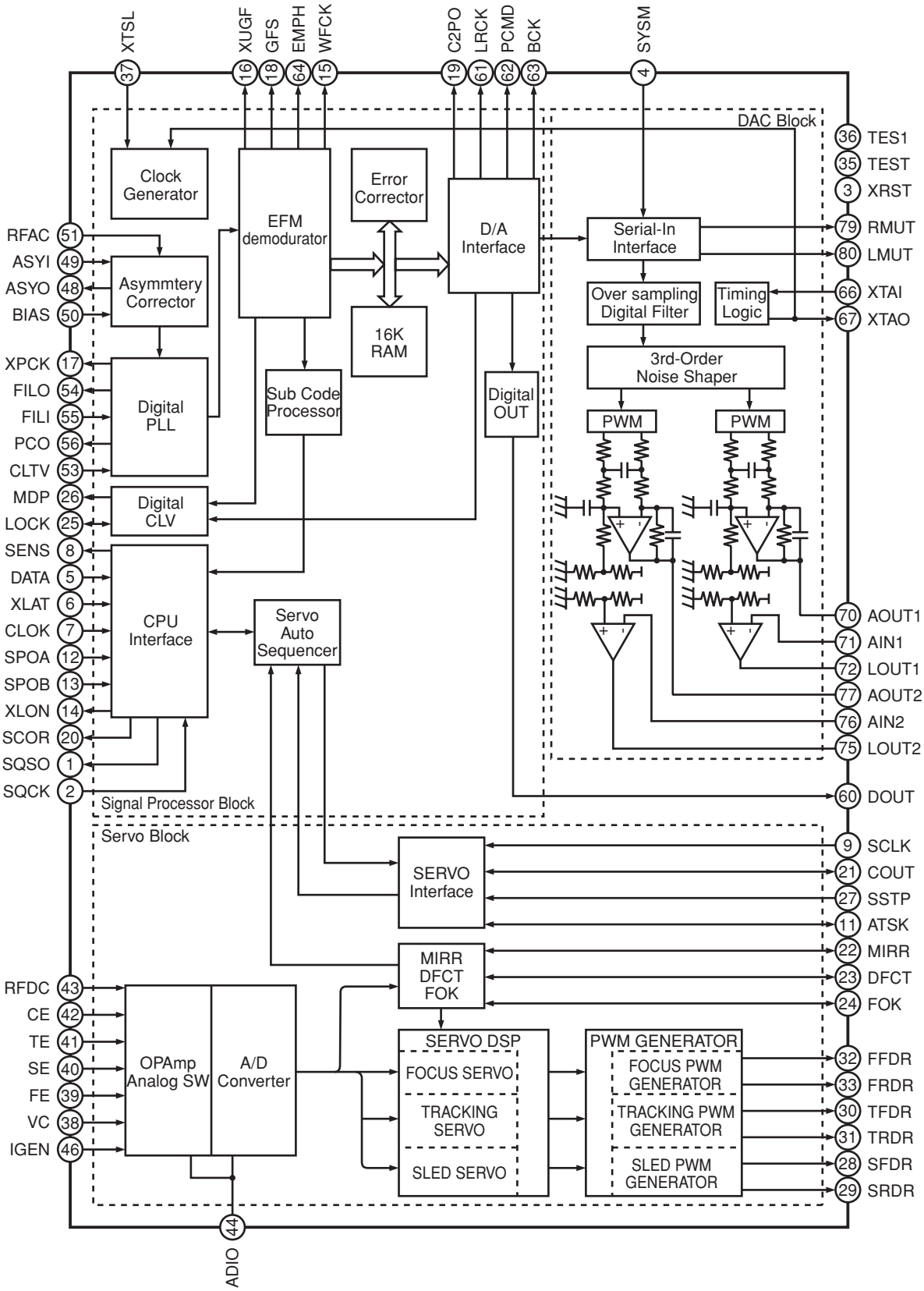


MAIN BOARD
U403: TC74HC00AP

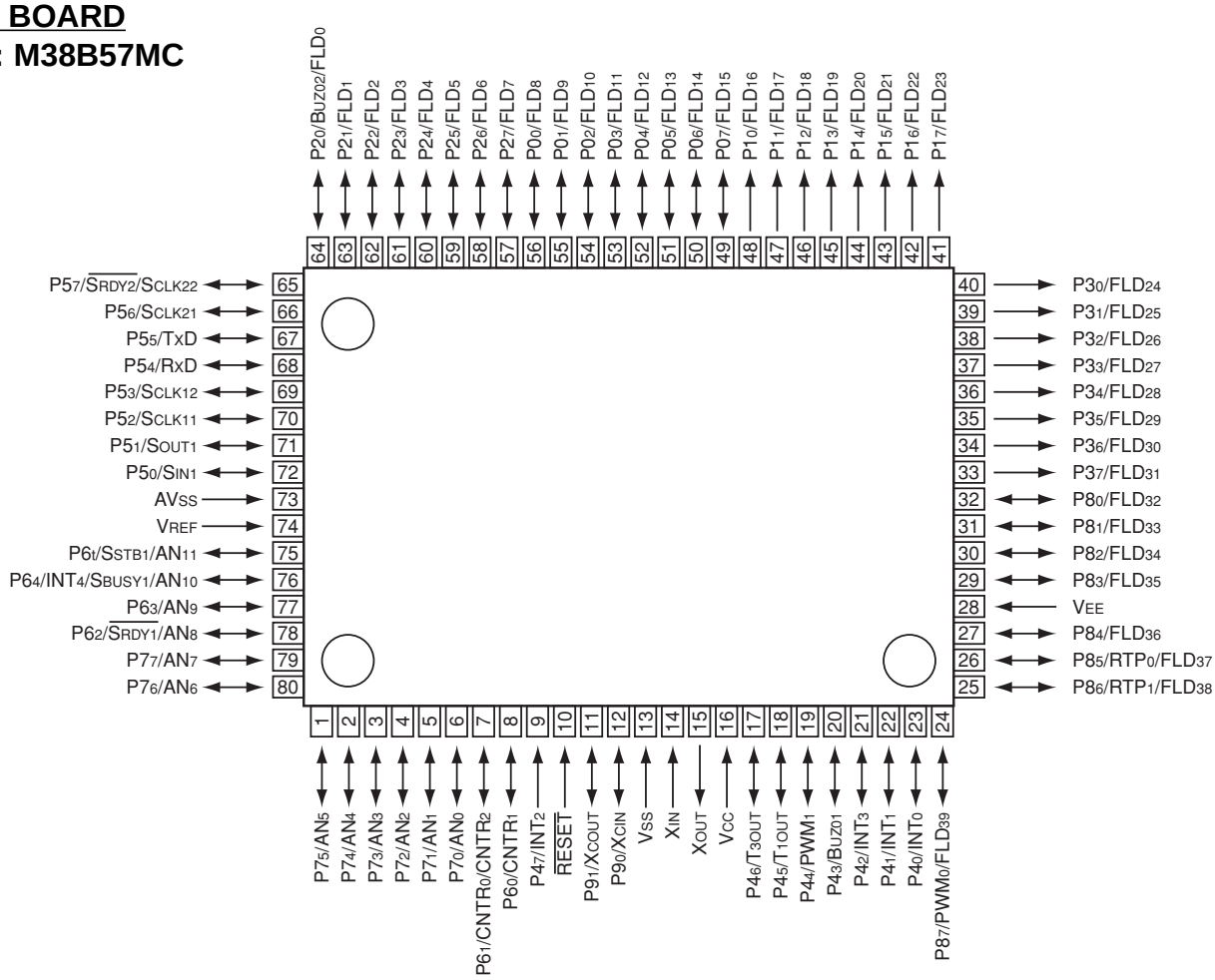


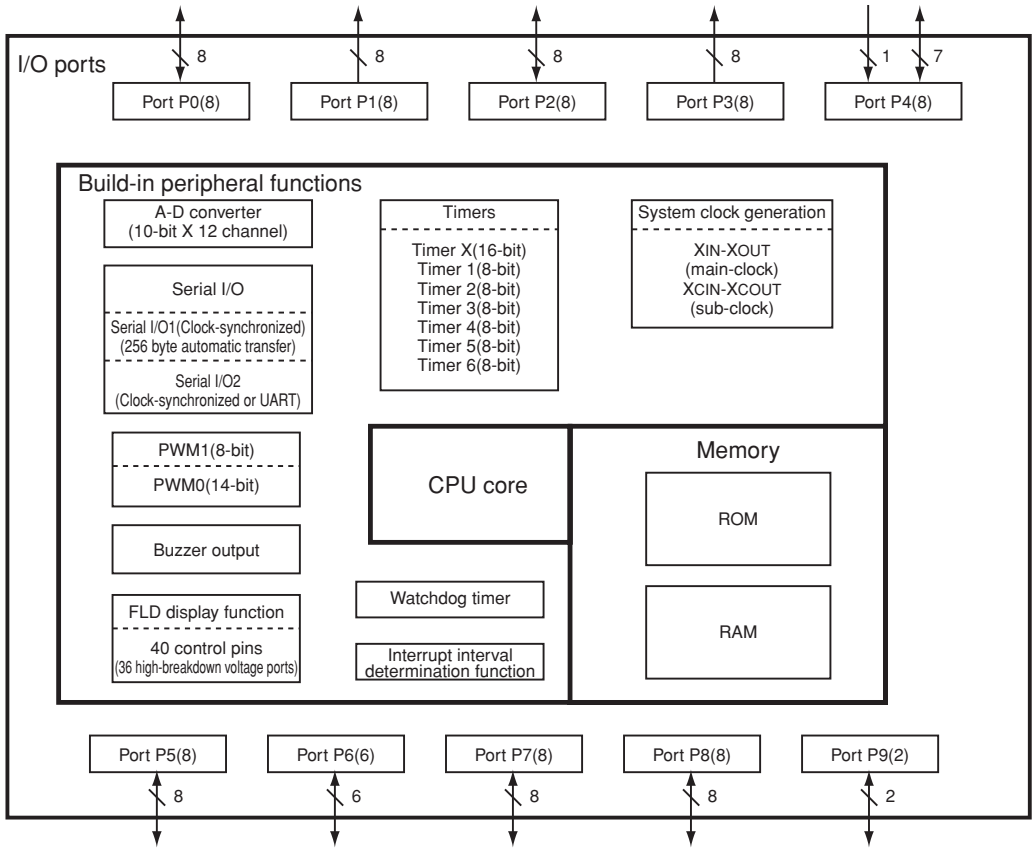
MAIN BOARD

U201: CXD3017Q

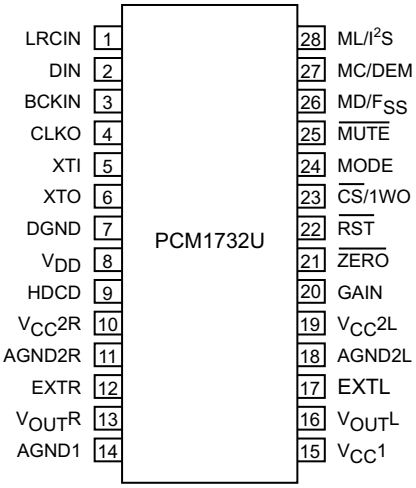


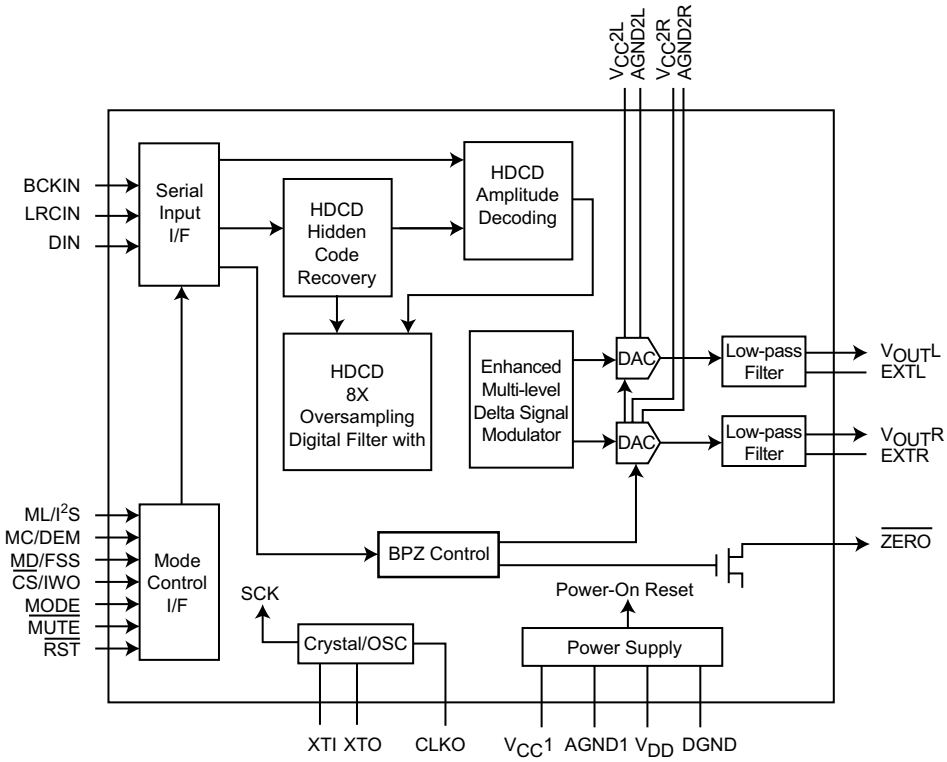
MAIN BOARD
U301: M38B57MC



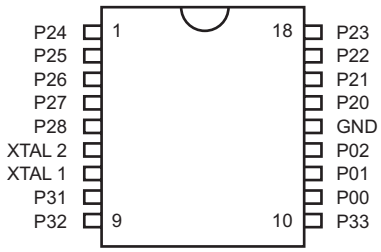


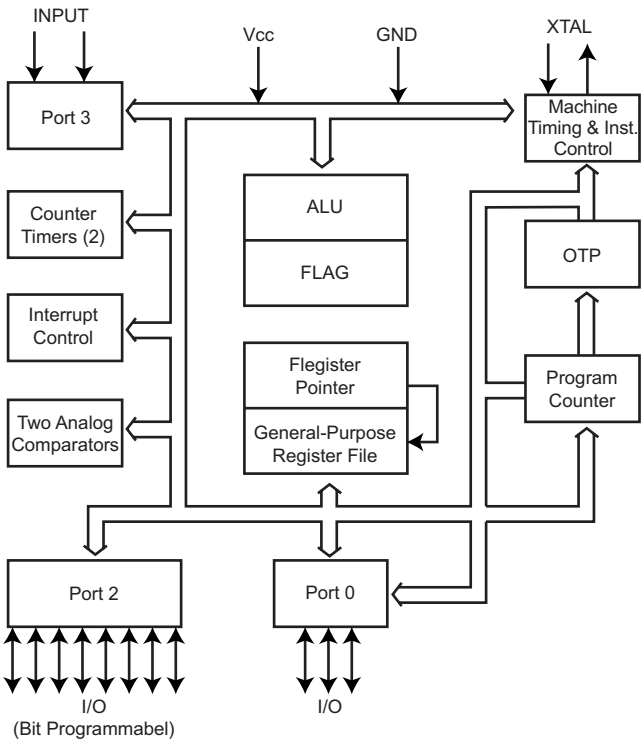
MAIN BOARD
U302: PCM1732



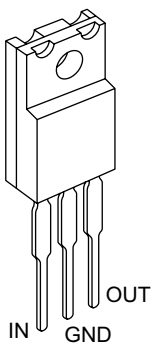


MAIN BOARD
U402: NADLINK (MASKED)

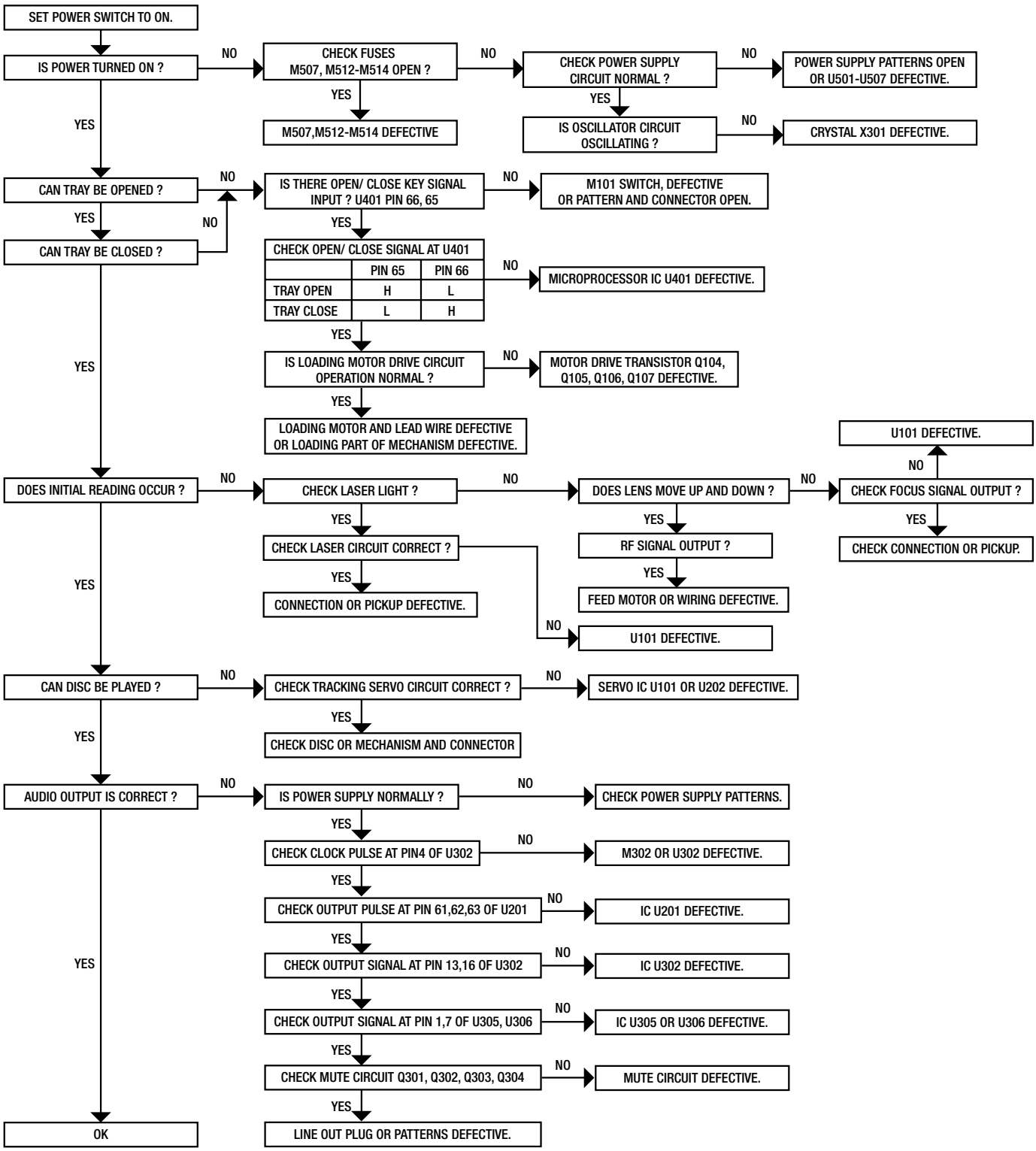




MAIN BOARD
U501, U506, U507: 78XX



TROUBLESHOOTING GUIDE



ELECTRICAL PARTS LIST

Reference No.	Part No.	Description
DISP ASSY		
PC BOARD		
	PCB-N0A70C-DISP	PCB ASSY DISP N0A70C
WIRE		
M505A	7009-9620-0	CONN WIRE ASSY 12P 100MM
M506A	7010-2224-0	CONN WIRE ASSY AWG28
PC BOARD		
	1725-711A-0000	PCB KEY N0A7XC C542
MISCELLANEOUS		
0017	4134-8701-0	HOLDER, VFD CORNER
0024	4152-4841-1	BLACK CUSHION (EL/LCD)
LED1	3700-5810-R	LED RED 5X5MM RT
M113	4816-043T-3	IR SENSOR PIC-26043TM2
M501	2460-1870-0	VFD 6-BT-271GK
KEY ASSY		
PC BOARD		
	PCB-N0A70C-KEY	PCB ASSY KEY N0A70C
RESISTOR		
R301,R306,R307	4701-102J-2	RCF 1/8W 1K 5% AT
R302,R303	4701-622J-2	RCF 1/8W 6.2K 5% AT
R304,R305	4701-202J-2	RCF 1/8W 2K 5% AT
SWITCH		
M101-M110	5200-3538-0	SWITCH, TACT SKHHBY 7MM
WIRE		
M120A	7012-6347-0	CONNECTOR WIRE ASSY
PC BOARD		
	1725-191B-0000	PCB KEY N0A70C
LED ASSY		
PC BOARD		
	PCB-N0A70C-LED	PCB ASSY LED N0A70C

Reference No.	Part No.	Description
LED		
D304	3700-3517-RG	LED RED/GREEN (L-469HGW)
WIRE		
M301A	7703-1280-2004	CONN.ASSY 3P P2.5 L=280
PC BOARD		
	1725-201B-0100	PCB MAIN N0A70C C542
LIVE ASSY		
PC BOARD		
*AH	PCB-N0A70C-LIVE	PCB ASSY LIVE N0A70C
*CE	PCB-N0A71C-LIVE	PCB ASSY LIVE N0A71C
SWITCH		
M802 ⚠	5200-3151-0-01	POWER SWITCH
PC BOARD		
	1725-201B-0100	PCB MAIN N0A70C C542
MISCELLANEOUS		
C800 ⚠	8910-0049-0	CAP400V 4700P
M801,M806	4132-1071-0	TERMINAL PIN
M810 *CE	1806-2170-0	EMI FILTER TLN12UA
MAIN ASSY		
PC BOARD		
	PCB-N0A70C-MAIN	PCB ASSY MAIN N0A70C
CAPACITOR		
C102,C103,C207,C208,C210, C213,C217,C222,C227,C228, C304,C322,C386,C409,C412, C413,C416,C417,C450,C528	150F-104K-2-FC	CC 50V 0.1UF 10% AT
C105-C110,C230	157C-107M-5-IUE	CE 10V 100µF 20% RL 5X11
C111	157F-225M-5-IUNK	CE 50V 2.2µF 20% RL 5X11
C201,C204	150F-221K-2-FC	CC 50V 220pF 10% AT 3.5x2
C203,C216,C221	150F-103K-2-FC	CC 50V 0.01µF 10% AT 3.5x2
C206	150F-331K-2-FC	CC 50V 330pF 10% AT 3.5x2
C209,C223	153F-152J-5-JM	CM 50V 1500PF 5% RL 5.5x7
C211,C212,C414,C415	15CH-270J-5-GG	CTC 0/60 27pF 5% RL 4x4
C214,C215	150F-471K-2-FC	CC 50V 470pF 10% AT 3.5x2

Reference No.	Part No.	Description
C218	150F-101K-2-FC	CC 50V 100pF 10% AT 3.5x2
C219,C220	150F-474M-5-II	CC 50V 0.47µF 20% RL 5X5
C226	157F-334M-5-GMK	CE 50V 0.33µF 20% RL 4x7
C229	157D-477M-5-OVK	CE 16V 470µF 20% RL 8x11.5
C303,C370	153F-103J-5-IM	CM 50V 0.01µF 5% RL 5X7
C305	157D-227M-5-OMK	CE 16V 220µF 20% RL 8x7
C306,C514,C515	150F-104K-5-II	CC 50V 0.1µF 10% RL 5x5
C307	157C-476M-5-IMK	CE 10V 47µF 20% RL 5X7
C308,C325,C334,C418,C420	157D-106M-5-GMK	CE 16V 10µF 20% RL 4x7
C310,C710	157B-107M-5-KMK	CE 6.3V 100µF 20% RL 6x7
C320,C321,C323,C324,C332	157D-106M-5-IUF3	CE 16V 10µF 20% RL 5X11
C328,C329	15CH-200J-5-GG	CTC 0/60 20pF 5% RL 4x4
C352,C353	158F-101J-5-KW	CP 50V 100pF 5% RL 6x12
C356,C357	153F-272J-5-JM	CM 50V 2700PF 5% RL 5.5x7
C362,C363	153I-472K-9-NL	CM 63V 0.0047µF 10% RB 7.5x6.5
C366,C367	158F-681J-5-KW	CP 50V 680pF 5% RL 6x12
C371-C374,C527	157D-477M-5-X9F3	CE 16V 470µF 20% RL 12.5x20
C375,C376	157E-107M-5-S5C	CE 25V 100µF 20% RL 10x16
C377,C378	153I-224J-9-NL	CM 63V 0.22µF 5% RB 7.5x6.5
C383	157C-226M-5-IUK	CE 10V 22µF 20% RL 5X11
C384	150F-102K-2-FC	CC 50V 1000pF 10% AT 3.5x2
C385	150F-222K-2-GD	CC 50V 0.0022µF 10% AT
C387,C419,C539,C544	153F-103K-5-IM	CM 50V 0.01µF 10% RL 5x7
C407	157D-228M-5-X9E	CE 16V 2200µF 20% RL 12.
C506,C507	157E-108M-5-5$F3	CE 25V 1000µF 20% RL 12.5x20
C508,C533	157C-108M-5-S5K	CE 10V 1000µF 20% RL 16x31.5
C510	157F-107M-5-OVK	CE 50V 100µF 20% RL 10x16
C511	157C-227M-5-OMK	CE 10V 220µF 20% RL 8x7
C512,C513,C537,C538	157E-106M-5-IUF3	CE 25V 10µF 20% RL 5X11
C521	157F-226M-5-IUK	CE 50V 22µF 20% RL 5X11
C522	157Q-476M-5-LUA	CE 35V 47µF 20% RL 6.5X11
C525	157C-108M-5-X&F3	CE 10V 1000µF 20% RL 12.5x25
C529	157D-338M-5-5&K	CE 16V 3300µF 20% RL 16x25
C560	157E-107M-5-KUK	CE 25V 100µF 20% RL 6.3x11
C561	157D-107M-5-KUK	CE 16V 100µF 20% RL 6.3x11
C713	153F-223K-5-LQ	CM 50V 0.022µF 10% RL 6.5x9
COIL		
L101,L102,L302	1801-100K-M	COIL 10µH 10% BL7.0
L201	1801-270K-M	COIL 27 µH,10%,AL,BL7
L301	1802-0450-0	DIGITAL COIL
WAFER/CONNECTOR		
M102	2101-1382-0	CONNECTOR FLEXIBLE 16P
M120B	2102-051S-004	5P ST.WAFER

Reference No.	Part No.	Description
M301B	2102-031S-004	3 PIN ST. WAFER
M502	2101-1811-0	8P PIN CONNECTOR P=3.96
M505B	2102-121S-004	12P ST.WAFER
M506B	2102-161S-004	16P ST WAFER P=2.5
JACK		
M313,M315	2113-1743-0	MONO JACK HTJ-035-12E
M317	2113-1300-0	2P RCA JACK W/R AU
M318	2113-1170-0	1P RCA JACK YL AU
M319	2113-1121-0	2P RCA JACK Y/Y AU
CRYSTAL		
M302	2300-1910-0	X'TAL 16.9344MHZ
SCREW		
	2954-2608-3000	SCREW BT 2.6X8 BLACK
	2954-3008-0000	TAPPING 3X8MM B-TITE
IC		
U101	3131-8030-0	IC CXA2581N ASP FOR CD S
U201	3131-8000-0	IC CXD3017Q DSP FOR CD
U202	3131-8040-0	IC BA6392FP 4-CHANNEL
U301	3131-8010-1	IC M38B57MC MICRO MASK
U302	3131-9380-0	IC PCM1732 HDCD DIA
U305,U306	3131-7620-0	IC OPA2134PA DIP OP AMP
U402	3130-9320-0	IC NADLINK (MASKED)
U403	3130-4160-0	IC TC74HC00AP DIGITAL
U501,U506	3130-2020-3	IC 7805 REG 5V 1.5A
U502	3130-5610-0	IC LM317T+ADJ REGULATOR
U503	3130-5620-0	IC LM337T-ADJ REGULATOR
U507	3130-2790-1	IC NJM7808FA +8V REG
RELAY		
K501,K502	4500-0200-1	RELAY 2P2T BT-12S 12VDC
RESISTOR		
	4701-100J-2	RCF 1/8W 10R 5% AT
J178,R227,R3,R408,R409,R411	4711-101A-2	RMF 1/8W 100R 1% AT
R1,R111,R201,R316,R327,R328, R329,R331,R333,R334,R337, R355,R356,R358,R362,R377, R378,R381,R382,R394,R395, R396,R397,R407,R412	4711-472A-2	RMF 1/8W 4.7K 1% AT
R103,R104	4711-203A-2	RMF 1/8W 20K 1% AT

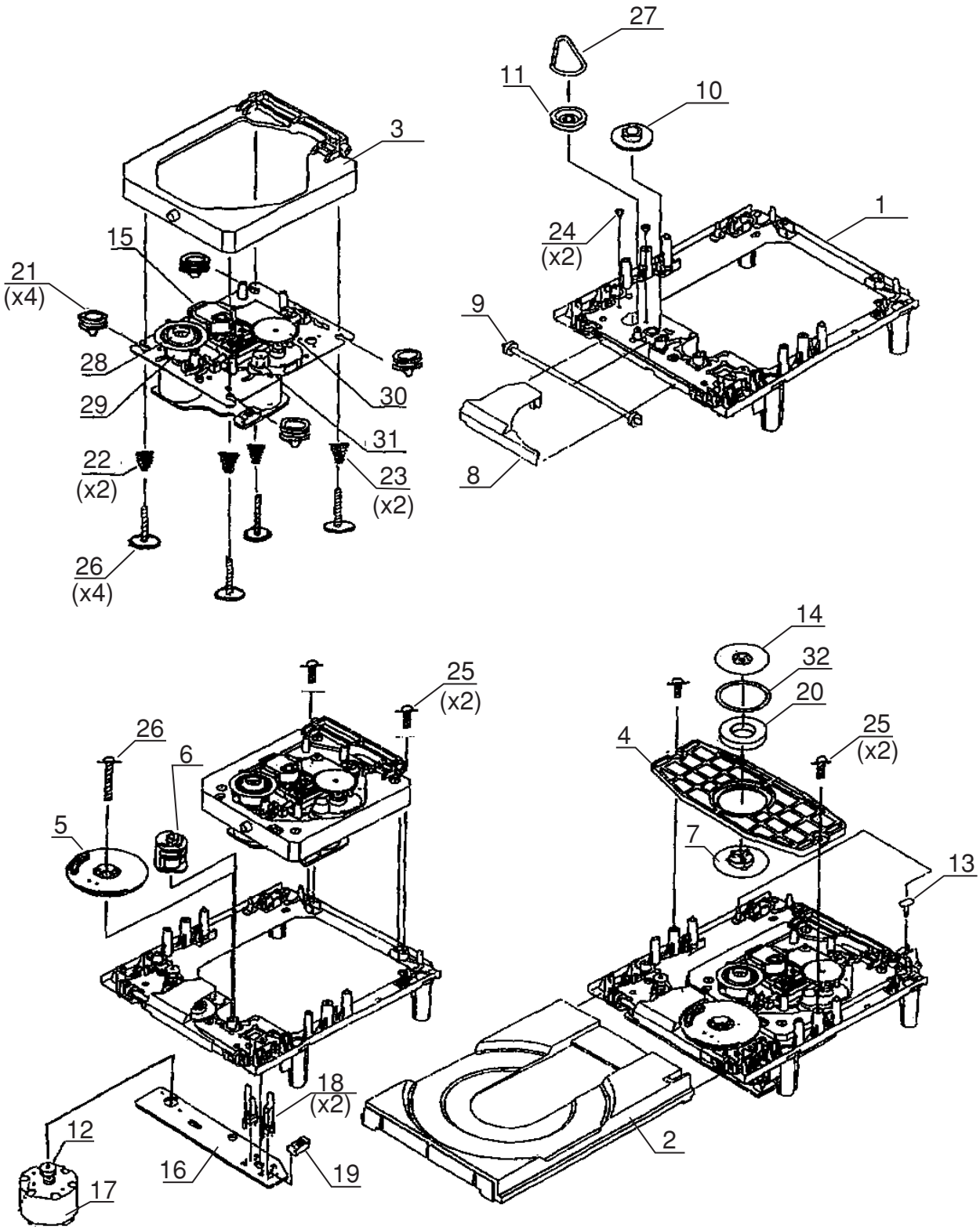
Reference No.	Part No.	Description
R105,R110,R30-R310	4711-302A-2	RMF 1/8W 3K 1% AT
R106	4711-154A-2	RMF 1/8W 150K 1% AT
R107,R212,R220,R225,R311, R373,R374,R410,R414	4711-104A-2	RMF 100K 1/8W 1% AT
R108	4711-683A-2	RMF 1/8W 68K 1% AT
R109,R119,R218,R219,R322	4711-153A-2	RMF 1/8W 15K 1% AT
R112,R113,R114	4711-512A-2	RMF 1/8W 5.1K 1% AT
R115	4711-182A-2	RMF 1/8W 1.8K 1% AT
R116,R117	4711-123A-2	RMF 1/8W 12K 1% AT
R118,R213,R224,R230,R312, R321,R335,R336,R338,R357, R361,R403	4711-103A-2	RMF 1/8W 10K 1% AT
R121-R124,R202-R207, R209-R211,R217,R315,R317, R332,R402	4711-102A-2	RMF 1/8W 1K 1% AT
R125,R215	4701-4R7J-C	RCF 1/8W 4.7R 5% ATS
R214	4711-822A-2	RMF 1/8W 8.2K 1% AT
R223	4711-333A-2	RMF 1/8W 33K 1% AT
R226	4711-105A-2	RMF 1/8W 1M 1% AT
R228,R229	4711-332A-2	RMF 1/8W 3.3K 1% AT
R318,R320,R517,R518,R520	4711-471A-2	RMF 1/8W 470R 1% AT
R319	4711-561A-2	RMF 1/8W 560R 1% AT
R359,R360	4711-1522-2	RMF 1/8W 15.2K 1% AT
R363,R364	4711-152A-2	RMF 1/8W 1.5K 1% AT
R367,R368,R371,R372,R503,R504	4711-222A-2	RMF 1/8W 2.2K 1% AT
R375,R376,R379,R380,R384	4711-750A-C	RMF 1/8W 75R 1% ATS
R383	4711-151A-C	RMF 1/8W 150R 1% ATS
R405	4711-223A-2	RMF 1/8W 22K 1% AT
R406,R415	4711-752A-2	RMF 1/8W 7.5K 1% AT
R413,R416,R523	4711-473A-2	RMF 1/8W 47K 1% AT
R501,R502	4711-241A-2	RMF 1/8W 240R 1% AT
DIODE		
	4804-0010-2	DIODE 1N4001 AT
D301-D303,D307,D308,D404, D409,D411-D415,D426,D431	4804-1480-2	DIODE 1N4148 AT
D305	4805-3930-2	DIODE 1N5393 200V 1.5A
D403	4837-3V36-2	DZ 1/2W +-5% 3.3V TEMIC
	4837-5B61-2	DZ 1/2W 5.45-5.73 ROHM
D501-D504	4808-18R0-2	DIODE IN5818R-ND AT
D505	4840-1140-0	ZD 1.3W 3.3V 5% AT
D510	4837-22D1-2	DZ 1/2W 21.52~22.63V

Reference No.	Part No.	Description
TRANSISTOR		
Q101,Q104,Q105	4860-0060-5	TR SS8550 C/D SAMSUNG RL
Q103,Q106,Q107,Q307-Q312	4860-0050-5	TR SS8050 C/D SAMSUNG RL
Q301-Q304	4860-1780-5	TR 2SD655F HFE:600-1200
Q401,Q403	4860-0660-5	TR 2SA1015 (G.R.) RL
Q402	4851-012F-5	TR 2SD1012F/G HFE
Q404	485A-114E-5	TR DTA114ESA ROHM
Q405	485C-114E-5	TR DTC114ES
Q502	485A-950Y-5	TR 2SA950-Y HFE 100-200
SWITCH		
M314	5200-3171-0-01	DPDT SLIDE
HEATSINK		
U501-U503,U506,U507	5400-9130-0	HEAT SINK FOR 7805 2438-
WIRE		
M101	7012-6536-0	CONN WIRE ASSY 5PIN P2.0
M102C	7012-6232-0	WIRE CON 16P P=1.0
M105A	7012-6538-0	CONN WIRE ASSY 6PIN P2.0
PC BOARD		
	1725-201B-0100	PCB MAIN N0A70C C542
MISCELLANEOUS		
GND1	4132-1061-0	SOLDER TAG
M302	4152-9052-0	CRYSTAL CUSHION (BOTTOM)
M302	4152-9042-0	CRYSTAL CUSHION (TOP)
M303	2704-0060-0	EMC FILTER
M316	4811-F32T-3	LIGHT TX UNIT GP1F32T
M402	2703-0190-0	CR RESONATOR
M507,M512,M513,M514	4131-9131-0	FUSE HOLDER 6.5MM PITCH
U502,U503	2601-2608-0601	FIBRE WASHER M2.6 0.8T
	2703-0150-1	CR4.00MHE,CSTLS4M00G55-B

NOTE:
- The components identified by ⚠ mark are critical for risk of fire and electrical shock. Replace only with part number specified.
- <*AH > : USA, Canadian model only.
- <*C > : European model only.
- Capacitors : CP-Polystyrene, CM-Mylar, CE-Electrolytic, CC-Ceramic, CTC-NPO.
- Resistors : RMF-Metal Film, RCF-Carbon Film, RWR-Wirewound Metal Oxide.

MECHANISM EXPLODED VIEW

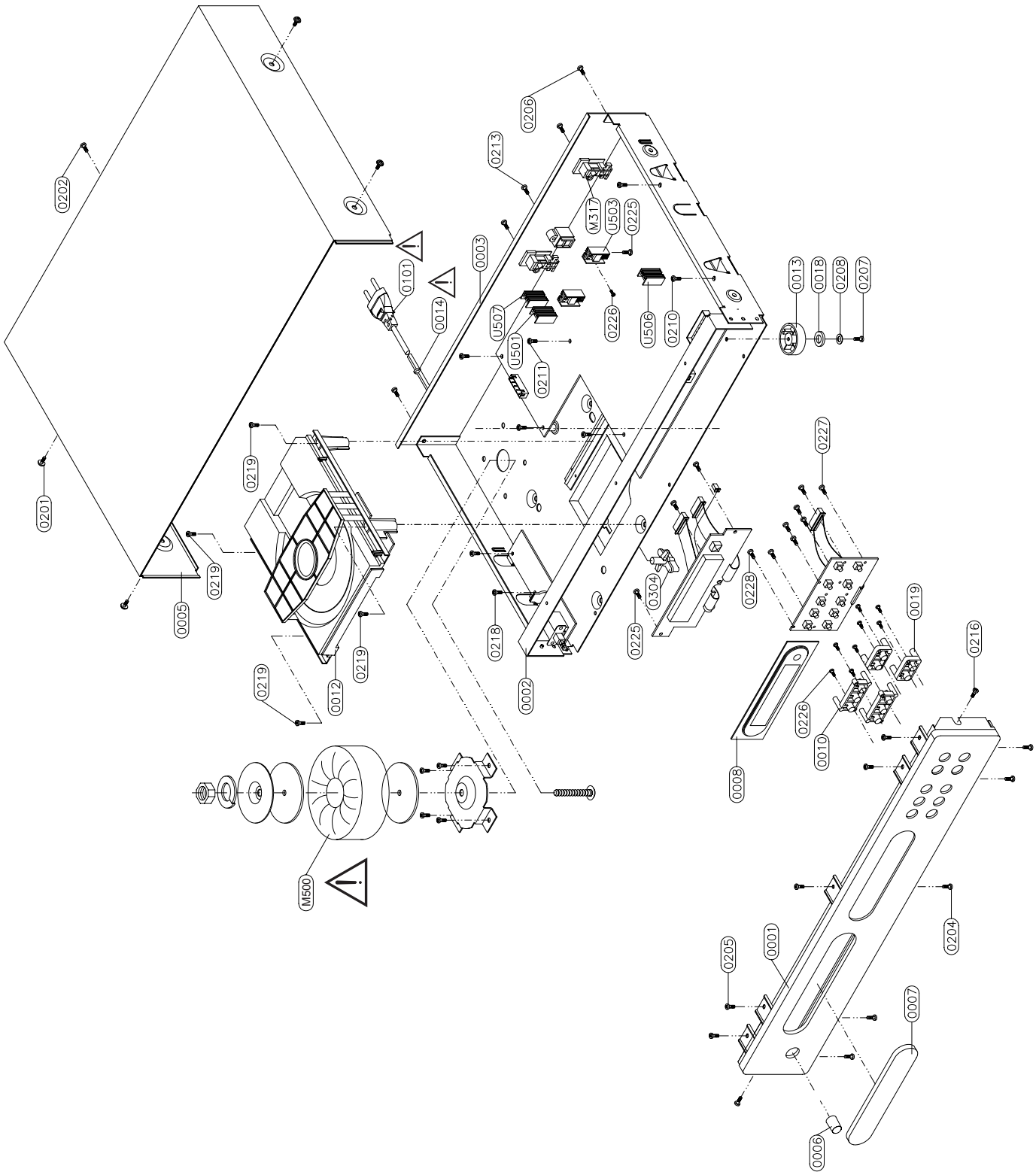
WSL-2130CCM



MECHANISM EXPLODED VIEW PARTS LIST

Item	Part No.	Description	Qty
1	4102-9000-0	Outside Main Chassis	1
2	4102-9001-0	Tray	1
3	4102-9002-0	Subchassis	1
4	4102-9003-0	Chucking Plate	1
5	4102-9004-0	Drive Gear	1
6	4102-9005-0	Control Cam	1
7	4102-9006-0	Chucking Pulley	1
8	4102-9007-0	Gear Cover	1
9	4102-9008-0	Tray Gear	1
10	4102-9009-0	Intermediate Gear	1
11	4102-9010-0	Loading Pulley	1
12	4102-9011-0	Motor Pulley	1
13	4102-9012-0	SW Pin	1
14	4102-9013-0	Chucking Yoke	1
15	4102-9014-0	Optical Pickup Unit	1
16	4102-9015-0	Loading PWB	1
17	4102-9016-0	Motor RF-500TB-14415	1
18	4102-9017-0	Leaf Switch	1
19	4102-9018-0	Connector pin (5P)	1
20	4102-9019-0	Magnet	1
21	4102-9020-0	Insulator	4
22	4102-9021-0	Coil Spring (Front)	2
23	4102-9022-0	Coil Spring (Rear)	2
24	4102-9023-0	Screw-Motor M2.6x2.5	2
25	4102-9024-0	Screw M2.6x7	2
26	4102-9025-0	Screw Washer Based M2.6x16	4
27	4102-9026-0	Rubber Belt	1
28	4102-9027-0	Center Ring	1
29	4102-9028-0	Turn Table	1
30	4102-9029-0	Gear (A)	1
31	4102-9030-0	Motor Gear	1
32	4102-9031-0	Damper	1

EXPLODED VIEW



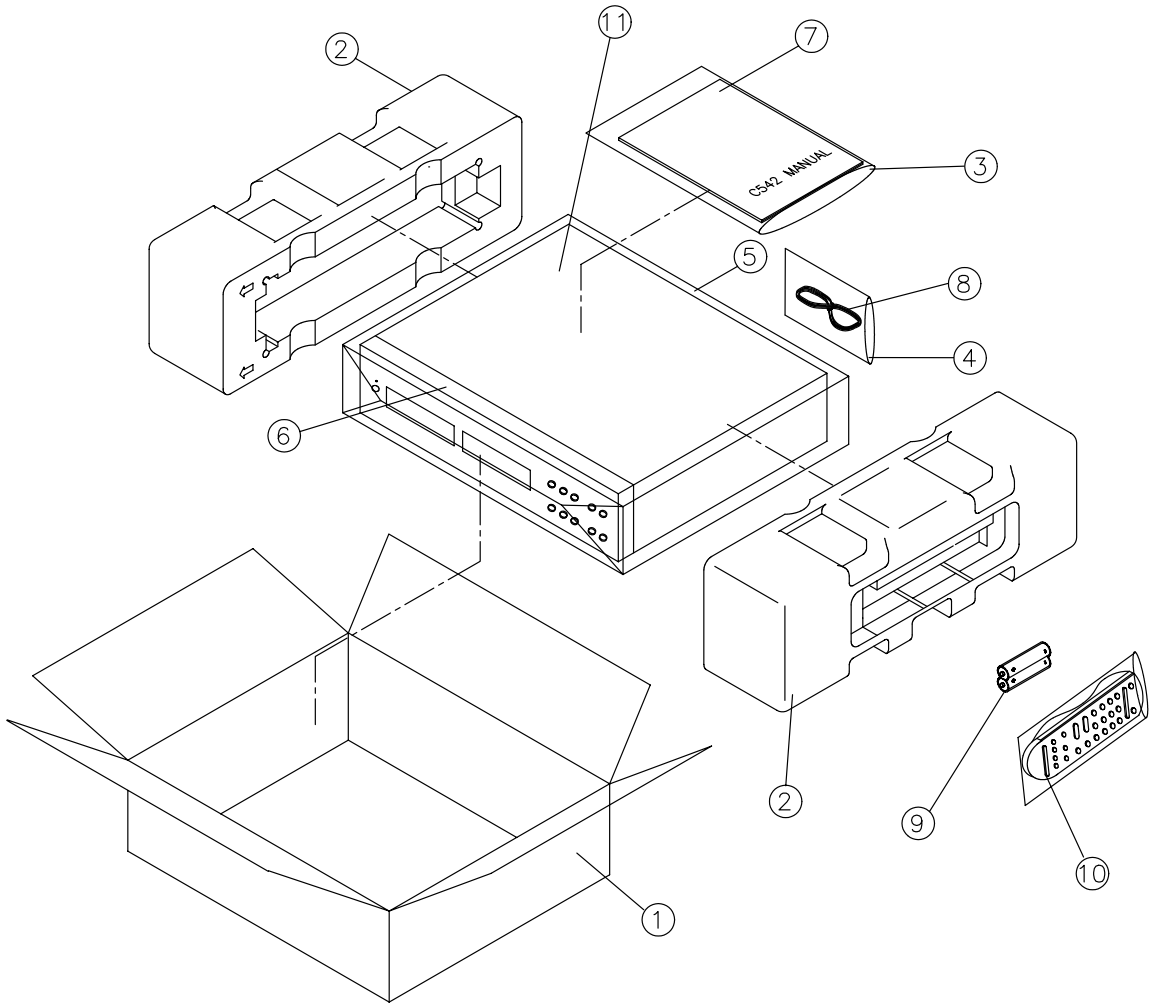
EXPLODED VIEW PARTS LIST

Item	Part No.	Description
0001 *AH GREY/*CE GREY	1466-5103-0	FASCIA BLACK (C542)
0001 *AH TI/*CE TI	1466-5104-1	FASCIA SILVER (C542)
0002	1402-3783-2	STRAP (C542)
0003 *AH GREY/*AH TI	1402-3526-1	CHASSIS C542(AH)
0003 *CE GREY/*CE TI	1402-3527-1	CHASSIS C542(C)
0005 *AH GREY/*CE GREY	1402-3531-0	TOP COVER BLACK (C542)
0005 *AH TI/*CE TI	1402-3532-0	TOP COVER SILVER (C542)
0006 *AH GREY/*CE GREY	2442-1002-0	POWER BUTTON BLACK
0006 *AH TI/*CE TI	2442-1003-0	POWER BUTTON SILVER
0007 *AH GREY/*CE GREY	4154-4192-1	CD DOOR BLACK (C521BEE)
0007 *AH TI/*CE TI	4154-4194-1	CD DOOR SILVER (C521BEE)
0008	3716-4318-0	WINDOW LENS C542
0010 *AH GREY/*CE GREY	2444-1203-0	BUTTON TRIO BLACK
0010 *AH TI/*CE TI	2444-1204-0	BUTTON TR10 TITANIUM
0013	4157-0501-1	RUBBER FOOT
0014 ⚠	4151-9461-0	STRAIN RELIEF BUSHING
0018	4152-4641-1	CUSHION FOOT W/RUBBER WA
0019 *AH TI/*CE TI	2444-1904-0	DUO BUTTON TITANIUM
0019 *AH GREY/*CE GREY	2444-1903-0	DUO BUTTON BLACK
0024	3714-5706-0	LED LENS (412) CLEAR SAN
0027	4104-3721-0	TRANSFORMER BRACKET
0101 *AH GREY/*AH TI ⚠	7009-3100-2	AC CORD 18AWGX2
0101 *CE GREY/*CE TI ⚠	7009-3110-0	AC CORD (SEMKO)
0102 *CE GREY/*CE TI	1808-0130-0	FERRITE CODE D19XT10
0201 *AH TI/*CE TI	2900-4006-2010	SCM PW M4X6 RECESS WHITE
0201 *AH GREY/*CE GREY	2900-4006-3010	M4X0.5PX6MM W/FLAT
0202 *AH TI/*CE TI	2954-3010-4000	ST SCREW 3X10 BH
0202 *AH GREY/*CE GREY	2954-3008-3000	T3X8MM SELF TAPPING
0204	2954-3008-3000	T3X8MM SELF TAPPING
0205	2954-3008-0000	TAPPING 3X8MM B-TITE
0206	2954-3008-3000	T3X8MM SELF TAPPING
0207	2954-3008-3000	T3X8MM SELF TAPPING
0208	2842-3367-0	METAL WASHER
0209	2900-4006-3010	M4X0.5PX6MM W/FLAT
0210	2954-3008-0000	TAPPING 3X8MM B-TITE

Item	Part No.	Description
0211	2904-3006-0000	SCREW M3X6
0213	2954-3008-3000	T3X8MM SELF TAPPING
0216	2954-3008-0000	TAPPING 3X8MM B-TITE
0218	2954-3008-0000	TAPPING 3X8MM B-TITE
0219	2904-3006-3000	SCREW M3X6 BINDING (BLK)
0225	2954-3008-0000	TAPPING 3X8MM B-TITE
0226	2954-2006-0000	TAPPING SCREW 2X6
0227	2954-2608-0000	SCREW BT 2.6X8
0228	2600-4008-0973	FLAT WASHER M4X0.8X9.7
	2601-3004-0801	FIBRE WASHER
0230	2954-3008-0000	TAPPING 3X8MM B-TITE
0301	4151-9411-0	CUSHION 130X10X1MM
0304	1463-160B-1	CD TRANSIT LOCK (ED)
0309	3100-5101-0	PC SHEET 50X7X0.25
0311	4152-0241-0	PAD CORK 15X12X3MM GRAY
0315	3100-5101-0	PC SHEET 50X7X0.25
0316	4154-1371-0	PC SHEET 14X260X0.5 THK
0500 *AH GREY/*AH TI	3000-4290-0	LABEL, BLANK 45X10
0500 *AH GREY/*AH TI	3005-0360-2	RIBBON 60MMX600M TEC
0501	3009-1689-0	CD LASER LABEL YELLOW
0502	3000-4205-0	LABEL, CD WARNING
M500 ⚠	1806-2512-0	TRANSFORMER N0870C I/P

NOTE:
- The components identified by ⚠ mark are critical for risk of fire and electrical shock. Replace only with part number specified.
- <*AH > : USA, Canadian model only.
- <*C > : European model only.

PACKING DIAGRAM



ITEM	PART NO.	DESCRIPTION	Q'TY
1.	1435-8401-0-2	CARTON BOX C542	1
2.	1490-3783-2	POLYFORM ENDCAP	2
3.	1497-1062-0	POLYBAG MANUAL	1
4.	1497-1302-0	POLYBAG	1
5.	1497-1332-1	POLYBAG	1
6.	1497-1432-0	EPE BAG (412)	1
7.	4301-7073-0	INSTRUCTION MANUAL	1
8.	2103-7302-1	RCA PLUG (MALE)	1
9.	4060-0530-0	GREENCELL 3A SIZE GP24G2	2
10.	8912-0038-0	REMOTE CONTROL C521BEE	1
11.	1405-2520-0	WHITE PAPER	1

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SERVICE MANUAL

C 542

COMPACT DISC PLAYER

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